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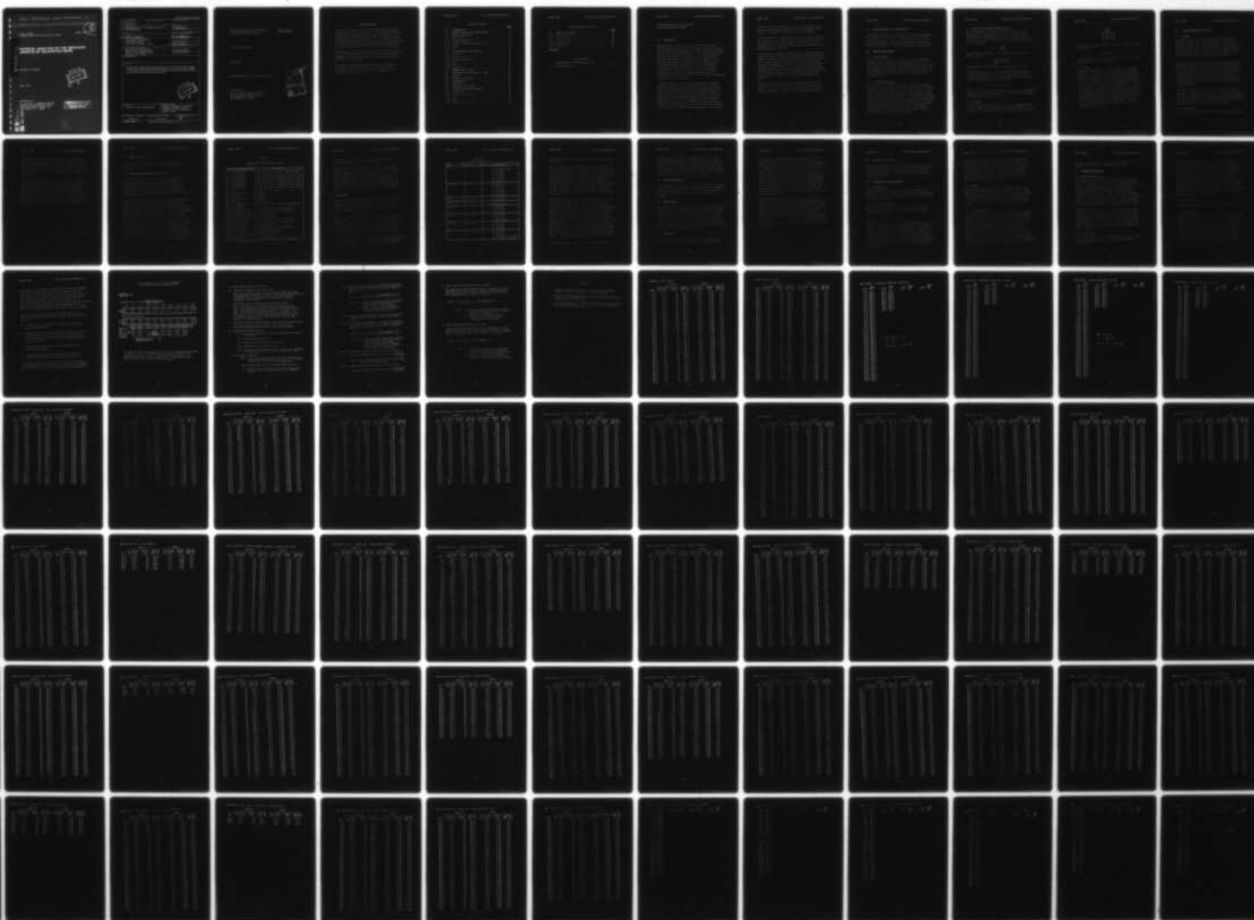
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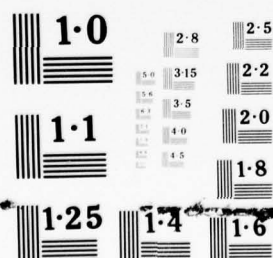
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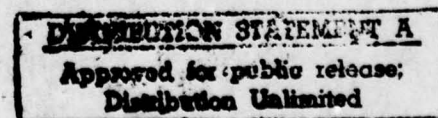
## PHYSICAL ANALYSIS OF THE IMPULSIVE ASPECTS OF HELICOPTER NOISE

William J. Galloway

April 1977

Submitted to:

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## TABLE OF CONTENTS

	<u>Page</u>
1.0 INTRODUCTION . . . . .	1
2.0 PROPOSED MEASURES OF IMPULSIVENESS . . . . .	3
2.1 General Description . . . . .	3
2.1.1 <i>South Africa</i> . . . . .	3
2.1.2 <i>Westland Helicopter</i> . . . . .	3
2.1.3 <i>National Physical Laboratory (NPL)</i> . . . . .	4
2.1.4 <i>France</i> . . . . .	4
2.1.5 <i>USA</i> . . . . .	5
2.2 Instrumentation for Analysis . . . . .	6
2.2.1 <i>General</i> . . . . .	6
2.2.2 <i>South Africa</i> . . . . .	6
2.2.3 <i>Westland Helicopter</i> . . . . .	7
2.2.4 <i>NPL</i> . . . . .	8
2.2.5 <i>France</i> . . . . .	8
2.2.6 <i>Peak-to-rms</i> . . . . .	8
3.0 SUMMARY OF DATA SETS . . . . .	10
3.1 MAN-Acoustics and Noise Inc. (MAN) . . . . .	10
3.2 FAA/TSC . . . . .	12
3.3 Columbia University . . . . .	15
3.4 Boeing-Vertol . . . . .	15
3.5 Fuller/NPL . . . . .	15
4.0 DISCUSSION OF RESULTS . . . . .	17
4.1 Comments on Analysis Methods . . . . .	17
4.1.1 <i>South Africa</i> . . . . .	17
4.1.2 <i>Westland Helicopter</i> . . . . .	17
4.1.3 <i>NPL</i> . . . . .	17
4.1.4 <i>French</i> . . . . .	18
4.1.5 <i>Peak-to-rms A level</i> . . . . .	18



## TABLE OF CONTENTS (Cont'd)

	<u>Page</u>
4.2 Comments on Data Set . . . . .	19
4.2.1 MAN-Acoustics Data . . . . .	19
4.2.2 FAA/TSC Data . . . . .	19
4.2.3 Columbia Data . . . . .	20
4.2.4 Boeing-Vertol . . . . .	20
4.2.5 Fuller/NPL . . . . .	21

## APPENDICES

## LIST OF TABLES

1	Signals Used in MAN-Acoustics Study . . . . .	11
2	FAA/TSC Data Set . . . . .	13

## PHYSICAL ANALYSIS OF THE IMPULSIVE ASPECTS OF HELICOPTER NOISE

### 1.0 INTRODUCTION

Assessment of the impulsive nature of helicopter noise produced during "blade slap" is a primary concern in national and international working groups that are developing procedures for helicopter noise certification. The assessment procedure involves two separate activities. First, investigation of the physical analysis of helicopter noise signatures that will yield appropriate descriptions of the degree of impulsiveness contained in the signals. Second, correlation between impulsiveness measures and psychoacoustic data on the response of people to impulsive noise. This report describes an evaluation of several proposed measures for describing the physical attributes of noise signals, addressing the first part of the problem.

A number of methods for analyzing helicopter noise signals have been proposed for describing impulsiveness. Working Group B of ICAO's Committee on Aircraft Noise (CAN-WG B) has requested that the appropriate ISO working group, ISO/TC 43/SC 1/WG 2, "Noise from Aircraft," assess the various proposals and provide a recommendation to WG B for a specific proposal to be used in the specification of certification procedures. In November 1976 ISO's WG 2 defined a program to evaluate four procedures from which a specific proposal was to be derived. This program consists of analyses to be performed

in France, the United Kingdom, and the USA on signals used in various psychoacoustical experiments, and other signals where possible, to examine the merit of different proposals.

An interim report of progress was provided at a WG 2 meeting on 9-10 March 1977. At this meeting it was concluded that of the four proposals advanced in November, only one, the UK-NPL approach, should be pursued further, along with an additional method proposed by the USA.

In this report we describe analyses made in the USA on several groups of noise signatures--signals used by MAN-Acoustics and Noise Inc. (MAN), a series of helicopter noise signals obtained by FAA during extensive tests at Dulles and Langley, and several other signals of interest. As a result of the March ISO meeting not all signals have been analyzed with all five methods, although all have been analyzed with the surviving two. Of the methods dropped in March, analyses described herein fully support the need not to pursue these procedures any further.

The data summarized in this report represent 338 different analyses of 77 different real and simulated helicopter noise signals. Analyses of white noise and A-weighted white noise, using the different procedures, are included for reference.



## 2.0 PROPOSED MEASURES OF IMPULSIVENESS

Five possible measures of impulsiveness have been investigated, two proposed by the UK, one by France, one by South Africa, and one by the USA. First, the general principles of each method are described, then the instrumentation configurations used in our analyses of the different measures are discussed.

### 2.1 General Descriptions

#### 2.1.1 South Africa

A value,  $\Delta_{SA}$ , is obtained by subtracting the time integral of A-weighted sound pressure level obtained with the "slow" averaging time of a precision sound level meter (SLM) from the time integral of A-weighted sound pressure level obtained with the "impulse" averaging characteristic of an impulse SLM. The resulting value of  $\Delta_{SA}$  is proposed to be correlated with subjective data.

#### 2.1.2 Westland Helicopter

The noise signal is passed in parallel through two systems. The first system consists of an octave band centered at 250 Hz, followed by a peak detector (Westland calls for a 200  $\mu$ s rise time). The second system consists of A-weighting the signal, then determining its rms value with a "slow" SLM characteristic. Output from both systems are plotted on a graphic level recorder (GLR) and the "eyeball" average peak value,  $\bar{L}_p$ , and "eyeball" average rms value,  $\bar{L}_A$ , obtained. The correction,  $\Delta_{WH}$ , is the decibel difference between the two levels. This value is proposed to be used to derive a transfer function from the subjective data for a correction to EPNL.

### 2.1.3 National Physical Laboratory (NPL)

The noise signal is A-weighted (without detection), then digitized at a sampling rate of 20 kHz. Each 0.5s interval of the signal is further subdivided into  $n$  periods, each of duration  $\tau$ . For each  $j$ -th period of the  $n$  periods, a quantity  $f(j)$  is computed as

$$f(j) = \frac{1}{M} \sum_{i=1}^m V_i^2$$

The impulsiveness factor  $I$  is then obtained, for each 0.5s interval, from

$$I = \sum_{j=1}^n \left[ \frac{f(j) - s}{s} \right]^2$$

In the original NPL description,  $\tau$  was set equal to 10 ms.

The quantity  $10 \log I = x$ , is used with a transfer function to obtain an impulse correction,  $\Delta_I$ , that is proposed as an addition to PNLT values, at 0.5s intervals, before calculating EPNL. The function advanced for trial is

$$\Delta = k (x - x_0) \text{ decibels}$$

where  $x$  is  $10 \log I$  for the signal,  $x_0$  is  $10 \log I$  for A-weighted white noise,  $k$  is approximately 0.6,  $\Delta$  is limited to a maximum of 6 dB, and  $\Delta$  is zero for  $x < x_0$ .

### 2.1.4 France

The noise signal is passed through a 2000 Hz lowpass filter, without a detector, then digitized at a sampling rate of 5000 Hz. A quantity,  $CI$ , is computed from the  $N$  samples of  $V_1$  in 0.5s as

$$CI = \frac{\frac{1}{N} \sum_{i=1}^N V_i^4}{\left[ \frac{1}{N} \sum_{i=1}^N V_i^2 \right]^2}$$

This quantity is used to derive a correction factor,  $\Delta_F$ , from the relation

$$\Delta_F = 1.14(CI - 3)$$

It is proposed that  $\Delta_F$  be added to the PNLT values, in each 0.5s interval, before computing EPNL.

#### 2.1.5 USA

It has been suggested that, if the purpose in the physical analysis is to determine a quantity related to the crest factor of the signal, a simple direct way of accomplishing this is to measure the peak A-weighted sound pressure level,  $L_p$ , in each 0.5s interval, as compared to the A-weighted rms level in the same time interval. The difference between the two levels is the A-weighted average crest factor in each 0.5s interval. Recognizing that this value is approximately 12 dB for A-weighted white noise, and typically  $12 \pm 1$  dB for conventional aircraft and helicopters without blade slap, values above 12 dB indicate the degree of impulsiveness of discrete impulses superposed on general noise backgrounds. The use of this measure should be explored in assessing psychoacoustical results.

## 2.2 Instrumentation for Analysis

### 2.2.1 General

All signals used in the analyses reported here were made available to us on 1/4 inch magnetic tape. All data were played back from a Nagra III recorder into the various analysis systems described below. Level equalization was provided in one-third octave bands to account for record-playback response characteristics on all but the MAN and Boeing Vertol signals for which calibration recordings were not provided.

In addition to the impulsiveness analyses, one-third octave frequency analyses, in 0.5s intervals, were made of each signal in order to compute PNL, PNLT, EPNL, and various A-weighted sound level measures. These analyses were made with a Hewlett-Packard Model 8054A real time analyzer, under control of a Digital Equipment Corp. PDP-8 computer. This system meets the requirements of FAR Part 36, and the analysis system and computer programs have been approved by FAA for noise certification purposes.

Metal foil sensors were attached to the tape recordings to establish the beginning and end of the analysis of each signal. The sensors trigger the start and stop of the analysis system so that the individual 0.5s intervals reported for each analysis are always the same time intervals of the signal, the timing being controlled by a crystal clock and the PDP-8.

### 2.2.2 South Africa

Signals were passed directly from the tape recorder output into

a Bruel & Kjaer (B&K) Type 2209 impulse precision sound level meter (SLM), with the d.c. output of the SLM fed into a B&K Type 2305 level recorder. The frequency response of the SLM on A-weighting was checked and found to be within 0.1 dB of the design center response specified in the December 1976 draft IEC specification for Type O precision SLM. Detector averaging times for "slow" and "impulse" were determined to be well within the tolerances specified for Type O instruments. Level recorder settings were those recommended in the 2209 applications manual, with a lower limiting frequency of 50 Hz, writing speed of 250 mm/s, and a paper speed of 0.3 mm/s.

Successive passes of the signal were made to provide A-weighted sound level records of each signal with the "impulse" and "slow" detection features of the SLM. The time pattern of the signal for the levels within 10 dB of the maximum level for each trace was digitized with a Grafacon graphical digitizer, the values obtained being stored in the memory of the PDP-8. An existing computer program was used to compute the time integral of the antilog of A-weighted sound level, from which the sound exposure level of the signal is computed. The South African correction is the difference in decibels between the sound exposure levels obtained with the "impulse" and "slow" detector characteristics.

### 2.2.3 Westland Helicopter

The analog signal was passed through a 250 Hz octave band, followed by a 2209 SLM set to "peak," followed by the 2305 level recorder, and in parallel through the 2209 SLM set to "slow," followed by a 2305 level recorder. Several helicopter signals were examined with this arrangement, with varying results. If the fundamental of the blade slap frequency lies outside the



250 Hz band the system is obviously of little use. The visual averaging of level recorder traces, while providing a semi-quantitative result, seemed too dependent on the observer to be useful for certification purposes. These results, developed early in the project, were confirmed in the March ISO meeting, so subsequent pursuit of this technique was abandoned.

#### 2.2.4 NPL

The tape recorded signal was A-weighted, then digitized with a 12 bit A/D converter at a sampling rate of 5000 Hz. The calculations described in 2.1.3 were performed with the PDP-8 and printed out at each 0.5s interval. Included with the printout is the value of 10 times the logarithm of the impulse coefficient.

#### 2.2.5 France

The tape recorded signal was passed through a 2000 Hz low pass filter, then digitized as in 2.2.4. The value of CI was computed by the PDP-8 and printed out for each 0.5s interval, along with the value of  $\Delta_F$  computed from  $\Delta = 1.14 (CI - 3)$ .

#### 2.2.6 Peak-to-rms

The tape recorded signal was passed to two parallel systems, one being the real time analyzer and the other a 2209 SLM, using the "peak hold" feature of the 2209. The d.c. output of the 2209 was passed to the A/D converter of the PDP-8. At the termination of each 0.5s interval, the peak A-weighted sound level of the 2209 was sampled by the PDP-8, then reset to zero. The readout and reset took place during the 30 ms interval during which the real time analyzer output was sampled by the PDP-8.

The rms value of A-weighted sound level was computed by the PDP-8, for each 0.5s interval, from the one-third octave band sound pressure levels generated by the real time analyzer with "slow" detection. The difference in peak and rms values of A-weighted sound level in each 0.5s time interval form the crest factor value for use in evaluation of psychoacoustical experiments.

Prior to performing the analyses reported here the amplitude linearity of the d.c. output of the 2209 was checked with a digital voltmeter. It was found that a definite amplitude non-linearity existed in the 2209 at lower meter values. Checking two other instruments, the identical response was found. Presumably the electrical output of the detector circuit has an amplitude compensation built into offset non-linearity in the meter of the 2209. The detector non-linearity in output was compensated for by programming a correction function in the PDP-8.

### 3.0 SUMMARY OF DATA SETS

Data from five sources have been analyzed with various of the measures described in Section 2. The five data sets are described below.

#### 3.1 MAN-Acoustics and Noise Inc. (MAN)

Twenty-four noise samples were used in a psychoacoustical experiment concerned with judgments of human response to simulated and real helicopter noise signatures, as well as conventional jet and propeller aircraft. The study is described in Report FAA-RD-76-116, July 1976. The MAN description of the different signals is shown in Table I, which is a reproduction of Fig. 3-1 of their report.

In the MAN experiments a master tape of the individual signals was used to generate the source data for the experiments. Since each signal was played back to the subjects at five different levels, absolute sound pressure levels were controlled during playback. In order to perform our analyses we arbitrarily specified a reference calibration level to which all sound pressure levels were referred. Thus the levels we report in the appended data set are offset in absolute value from those used in the MAN experiment. Since the level to which the subjects were exposed was monitored by the A-weighted sound level at the listener position, one may adjust the levels we report by shifting all levels by the difference in A-weighted sound level between the data we report and those in the MAN experiment. Note that the results of the South Africa, French, NPL, and peak-to-rms analysis methods are unaffected by the difference



TABLE I

## Signals Used in MAN-Acoustics Study

No.	Flyover/Simulation	Description
1	Simulation	Tail rotor noise with no slap(standard).
2	Simulation	Tail rotor noise w/light slap at 10 b/s.*
3	Simulation	Tail rotor noise w/moderate slap at 10b/s.
4	Simulation	Tail rotor noise w/heavy slap at 10 b/s.
5	Simulation	Tail rotor noise w/moderate slap at 6 b/s.
6	Simulation	Tail rotor noise w/moderate slap at 18b/s.
7	Simulation	Tail rotor noise w/moderate slap at 10b/s. and fast rise time.
8	Boeing 747	Takeoff
9	DC-8	Takeoff
10	Boeing 747	Approach
11	DC-8	Approach
12	Britten-Norman Islander	Takeoff of small commuter reciprocating.
13	Convair 640	Takeoff of medium sized turboprop.
14	Chinook CH 47-A	Level flyover at 500 ft. altitude
15	Chinook CH 47-A	Routine Approach
16	Chinook CH 47-A	Routine takeoff
17	Bell UH-1H (Huey)	Level flyover at 500 ft. altitude.
18	Kiowa OH-58	Level flyover at 500 ft. altitude.
19	Kiowa OH-58	Routine approach
20	Sea Knight	Level flyover at 500 ft. altitude.
21	Sea Knight	Shallow turn operation.
22	Hughes 300	Steep turn operation.
23	Bell UH-1H (Huey)	Routine takeoff
24	Hughes 300	Level flyover at 500 ft. altitude.

\*beats per second.

in absolute levels, thus the effect of these methods on describing impulsiveness are also unaffected.

Results of the various analyses are contained in Appendix A. They include the values obtained by the South Africa, French, NPL, and peak-to-rms analyses. Values of PNL, PNLT, overall sound pressure level, A, D, and N weighted sound level, and tone corrections, are also provided, at 0.5s intervals, as well as the one-third octave band sound pressure levels for PNLTM, the maximum levels in bands, EPNL, and sound exposure level (the time integral over the event of A-weighted sound level).

### 3.2 FAA/TSC

A wide variety of noise measurements were obtained by FAA in October 1976 on eight different helicopters. A set of 37 different recordings was selected by FAA from these data for use in the analyses reported herein. A description of the individual events is listed in Table II.

The data samples selected were supplied to us by TSC on a single tape. Calibration levels and a recording of pink noise were provided so that absolute values of sound level could be obtained. Analyses of the signals to provide EPNL, PNLT, A-weighted sound level, and their ancillary measures, were also supplied from the TSC analysis. (In the EPNL analyses no tone correction was applied for frequencies below 500 Hz.)

The results of analyses of these signals using the NPL, French, and A-weighted peak-to-rms methods are provided in Appendix B. The routine analyses of PNLT, EPNL, and various A-weighted

TABLE II  
FAA/TSC DATA SET

MIC	HELICOPTER	RUN NO.	TEST CONDITION
EAST C.L.	CH-47C	12	6° APPROACH
	"	18	60 KT LEVEL FLYOVER
	"	20	9° APPROACH
	"	23	100 KT LEVEL
	"	24	141 KT LEVEL
	"	27	141 KT LEVEL
	"	28	150 KT LEVEL
	"	29	150 KT LEVEL
EAST C.L.	"	35	3° APPROACH
	UHIN (212)	24	6° APPROACH
	"	27	9° APPROACH
	"	31	60 KT LEVEL
	"	32	99 KT LEVEL
	"	36	110 KT LEVEL
	"	37	114 KT LEVEL
	"	43	3° APPROACH
EAST C.L.	HUGHES 300C	34	75 mph LEVEL
	"	44	6° APPROACH
EAST C.L.	BELL 206L	46	6° APPROACH
	"	71	130 mph LEVEL
EAST C.L.	Bell 47G	19	6° APPROACH
	"	29	68 mph LEVEL
	"	30	75 mph LEVEL
	"	41	9° APPROACH
WEST C.L.	HUGHES 500C	58	69 mph LEVEL
	"	65	6° APPROACH
	"	109	150 mph LEVEL
	"	110	130 mph LEVEL
WEST C.L.	S-61 (SH-3)	16	9° APPROACH
	"	18	60 KT LEVEL
	"	20	6° APPROACH
	"	34	115 KT LEVEL
WEST C.L.	S-64 (CH-54B)	50	60 KT LEVEL
	"	51	6° APPROACH
	"	67	95 KT LEVEL
	"	74	6° APPROACH (w/o TRUCK)
	"	78	95 KT LEVEL (w/o TRUCK)

sound levels, as described in Section 3.1 are also provided in Appendix B.

Note should be made of the difference in time scales between the TSC analyses and those we report. In both data sets the timing of 0.5s intervals is started at an arbitrary point in the time pattern where the signal is at a substantially lower level than 10 dB below the maximum level of the event. Synchronization between the TSC data and our analyses can be made by noting the particular 0.5s time intervals in which the maximum A-weighted sound level (or PNLTL) occurs in the two sets of analyses. The difference between these time intervals provides a constant offset between the time scales for the two sets.

For example, consider the data for the CH47C, Run 12. The TSC analysis of levels in 0.5s intervals (Table No. 27) shows that the maximum level occurs for time interval 35, or 17.5s from the start of the analysis). The BBN analysis shows maximum level at the 49.0s interval from start of analysis. Synchronization between the two data sets is obtained by displacing the time scale of one relative to the other by 31.5s. On the other hand, the TSC report of one-third octave sound pressure levels for the time intervals relative to overhead have been re-scaled with the 0 time at the overhead point (Table No. 64). In this case the maximum occurs during the overhead (0.0) time interval. The zero time interval in this table corresponds to the 49.0s time interval in the BBN analysis. Time scale translations between the TSC and BBN analyses are provided in Appendix B.

In comparing data for various 0.5s intervals it should be

recognized that the value of A-weighted sound level in the different intervals relative to the level in the time interval of the maximum level differ between the NPL impulsiveness analysis and the normal FAR 36 analyses because of the shorter averaging time (0.5s) used in the NPL method. Thus the total time interval between the "10 dB down" points in the NPL method is less than in the conventional FAR 36 analysis.

### 3.3 Columbia University

Psychoacoustical experiments with various aircraft noise signals are being conducted at Columbia University by Prof. E. Galanter. Among the signals supplied to us are three helicopter noise signatures. Analyses for these signals are contained in Appendix C.

### 3.4 Boeing-Vertol

During the course of this project we were offered a sample tape for analysis by Boeing-Vertol. The samples consist of flyover noise recordings of an unmodified CH47 Chinook helicopter, the Chinook modified by extending the height of the tail rotor pylon, and finally the Chinook further modified by extending the fuselage distance between rotor centers to eliminate rotor overlap. These modifications are representative of the kind of product improvement possible to lower helicopter noise. Analyses for these signals are provided in Appendix D.

### 3.5 Fuller/NPL

A considerable weight in the British position relative to impulse corrections to EPNL for helicopter signals is based



on a subjective response experiment performed by H. C. Fuller of the National Physical Laboratory in England. [Results reported in two ISO working group papers, ISO/TC43/SC1/WG2(Berry & Robinson 3)-77, November 1976, and ISO/TC43/SC1WG2 (Berry & Robinson-4)-81, February 1977.] These papers report on judgment tests of response to a variety of signals with different impulsiveness simulations. The test signals consisted of 10s samples of first a frequency shaped noise simulating a Wessex helicopter without bladeslap, then the same signal on which a single sine wave pulse, repeated at a repetition rate of 10 Hz, is used to simulate blade slap. Sine pulses with fundamental frequencies of 200, 400, and 800 Hz were used, with each applied at 10 and 20 dB peak SPL above the rms level of the original signal.

The results of the Fuller data were originally reported in A-weighted sound level, with the second paper reporting on the results of the various impulsiveness measures applied to these signals. Since PNLT and peak-to-rms values for these signals were not supplied, we believe it important to obtain such analyses. Consequently, we prepared a tape recording to represent these signals according to the description provided in the original paper. Analyses of these signals are provided in Appendix F. We also supply analyses for the same basic signals with a 30 dB peak SPL level above the rms level of the original signal.

#### 4.0 DISCUSSION OF RESULTS

The scope of the effort described in this report did not allow extensive investigation of the results, and in particular did not allow much evaluation of these analyses against psycho-acoustical experiments. A number of tentative conclusions can be stated, however.

##### 4.1 Comments on Analysis Methods

###### 4.1.1 South Africa

This method is insensitive to the degree of impulsiveness present in the signal and does not appear to be a useful method. This conclusions is completely consistent with that reached by the British and French.

###### 4.1.2 Westland Helicopter

The bandpass filtering of signals to measure peak values is not useful if the impulsiveness is largely due to signals outside the pass band.

###### 4.1.3 NPL

The method proposed does identify impulsive signals. Using a "fast" integration time of 10 ms, as proposed by ISO and as used in the BBN analyses, gives quite different results from those reported by NPL using 1 ms integration for "fast." The 10 ms data provide impulsive coefficients,  $I$ , approximately one order of magnitude lower than the 1 ms data, at least for the Fuller/NPL data for which a direct comparison is possible. The 10 ms data are not very sensitive for detecting relatively low peak to rms impulses, although the 1 ms data do seem to do a better job.

Problems of determining threshold values of this impulsiveness coefficient below which no "penalty" is imposed are very dependent on the choice of integration constants. For example, the NPL analysis using 1 ms integration time always yielded a positive value for I when the Fuller data were analyzed. The BBN analysis (10 ms) gave a zero value for I for 10 dB peak-to-rms signals, with positive values only obtained for the 20 and 30 dB peak-to-rms signals.

#### 4.1.4 French

Most signals, including white noise, produced a value of C.I. around 3 unless distinct impulses were present. For the more impulsive signals higher values of C.I. were obtained, becoming larger with increase in crest factor. The numerical values of C.I. obtained in the NPL and BBN analyses of the Fuller data were quite close in all but one case, in which they differed by 30%.

#### 4.1.5 Peak-to-rms A level

This method is the easiest to implement and clearly identifies the crest factors (CF) for a signal. In examining this method further, however, some standard must be set for establishing the value below which no impulsiveness "penalty" is to be made. In the case of A-weighted white noise, we found the CF for 0.5s intervals of a 20s sample to be 12.1 decibels with a standard deviation of 0.50 decibels. Random noise with variously shaped spectra will yield different values. For example, the Fuller data for helicopter noise without impulses had a CF of 10.7 decibels, with many of the other real flyover signals having comparable values. Clearly a better understanding of the effect of the spectral shape of helicopter noise on CF



must be obtained, since CF theoretically increases with decrease in band width of a gaussian noise signal.

## 4.2 Comments on Data Sets

### 4.2.1 MAN-Acoustics Data

The different methods to describe impulsiveness gave quite different results of the first seven signals, of which the first is a simulated tail rotor noise spectrum and the following six have impulses superposed on the first signal to simulate different blade slap situations, the NPL method identified only signal No. 4, "heavy blade slap" as having impulses, as did the French method. The French method identified a level of impulsiveness just above "none" for signals 3 and 4 as well. The peak-to-rms method ranked signals 3, 4, and 7 as being substantially more impulsive than the others.

In the flyover signals, the NPL method identified substantial impulsiveness in signals No. 14, 15, 17, 20, 21 and 23, as did the French and peak-to-rms methods. There was a large difference, however, in the degree of impulsiveness assigned to particular 0.5s time intervals by the different methods. Application of any of these methods to complex signals that vary in time will require a substantially more detailed examination than possible here.

### 4.2.2 FAA/TSC Data

The various methods for describing impulsiveness had the same general characteristics for identifying impulsiveness as described above.

Comparisons between the TSC and BBN analyses of EPNL and related measures are quite good, as summarized in Appendix B. In examining the differences between the two sets of analyses, recall that the TSC analyses differs from the BBN analysis in two specific ways. First, the TSC analysis does not apply tone corrections below 500 Hz, and second, the TSC analysis inserts a constant SPL in those one-third octave frequency bands where signal-to-noise ratio is limited. The BBN analysis includes tone corrections below 500 Hz, and in noise limited bands inserts SPL values that decrease in level with increasing frequency, e.g. the spectrum is "rolled off" at high frequencies. Considering these differences in procedure, the two sets of analyses are remarkably consistent.

#### 4.2.3 Columbia Data

The three helicopter signals analyzed had no impulsiveness characteristics identified by any of the measures.

#### 4.2.4 Boeing-Vertol

The three signals provided by Vertol show the results of change in helicopter design to reduce noise. The tape provided to us had a calibration tone, but no further system correction data. Comparison of Vertol values of EPNL and PNLT with the BBN analyses shows a systematic difference of approximately 5 decibels in absolute level, with the Vertol data being higher. This difference does not affect the impulsiveness analyses which are based on relative levels. It is impressive to note that the EPNL for the 347 is not only 14 decibels lower than the parent CH47, but also that the peak-to-rms level is also reduced by up to 3.4 decibels.

4.2.5 Fuller/NPL

This data set is of interest for several reasons. Comparison of the NPL and BBN analyses shows the substantial difference in results obtained with 1 ms and 10 ms integration times. Further, the NPL experiment balanced subjective judgments on the basis of maximum A-weighted sound level. The BBN analyses allows the subjective data to be adjusted on the basis of constant PNLT as proposed in ISO, since at constant A-level the values of PNLT are not the same for the different signals.

Analysis of the Fuller data on the basis of the change in PNLT level required to obtain equal judged noisiness between the different signals shows that this offset is approximately, decibel for decibel, equal to the amount in decibels that the A-weighted sound level crest factor exceeds that for the noise alone. That is, when the crest factor is, for example, four decibels greater than that of the signal without impulses, the higher crest factor signal must be four decibels lower in PNLT to be judged equally annoying as the non-impulse case.

The reader is urged not to assume that this result will necessarily be obtained in other cases, or that corrections applied at 0.5s intervals to a complete flyover signal will provide comparable subjective results. Conclusions of this sort can only be reached through a careful, well planned set of psychoacoustical experiments.

## APPENDICES

A number of different analyses are included in the following appendices. In most instances the computer printouts are self-explanatory. A few comments may assist in their interpretation.

The first form of analyses reported lists the results of the NPL impulse analysis (labeled "British" on the printout). The columns in the tables list first the 0.5s time interval from the start of analysis; then the level in decibels of the A-weighted sound level, relative to the maximum value of A-weighted sound level for the signal; the linear value of the impulse coefficient,  $I$ ; and  $10 \log I$  in decibels, as described in Section 2.1.2.

The results of the analyses using the French method are listed on the same printout as the British. In this case the rms value is the unweighted sound level, low passed at 2000 Hz, relative to the maximum value of this rms level for the signal. The impulse coefficient is the linear value "C.I." described in Section 2.1.4 of the report, while the "impulse correction" is  $1.14(C.I.-3)$ , as described in Section 2.1.4.

The second printout lists, for each 0.5s time interval, the peak A-weighted sound level during that interval. This value is to be used with the slow rms value of A-weighted sound level to determine crest factors.

The third form of analysis reported is a printout of data from analyses used to determine EPNL. The first part of the data lists, for successive 0.5s time intervals, PNL, pure tone

correction, PNL, overall (unweighted) sound level, A-weighted sound level, D-weighted sound level, N-weighted sound level ( $D + 7$  dB), and the band number in which the tone appeared that caused the tone correction. Following these data are summary data reporting one-third octave sound pressure levels, the time interval in which maximum values of various measures occurred, and various duration factors and time integrations to obtain EPNL and SEL. An explanation of the summary tables is attached.

All of the above data are provided for each data set. In addition, several other analyses are summarized for different data sets:

- a) The results of the South Africa method are listed for the MAN-Acoustics data.
- b) Comparisons between various measures obtained in the TSC and BBN analyses of the FAA (TSC data, along with time interval displacements to allow time synchronization of the two data sets.
- c) Comparisons between Boeing Vertol and BBN analyses of Vertol noise signals.
- d) Comparisons between NPL and BBN analyses of various impulsiveness measured for the Fuller/NPL signal set.

As an initial frame of reference for the different measures of impulsiveness we include samples of random noise processed with the British, French, and A-weighted peak-to-rms methods.

# SAMPLE TABULATION OF NOISE LEVEL MEASURES FOR AIRCRAFT FLYOVER NOISE ANALYSES

RUN #1 (1)

MAXIMUM VALUES IN BANDS, PNLC = 113.0 (2)

	50	63	80	100	125	160	200	250	315	400
(3)	78.7	78.4	76.9	77.7	78.0	81.4	79.6	77.7	78.1	77.3
	77.8	76.9	76.3	80.6	81.8	81.2	85.3	96.2	88.0	79.9
	83.8	75.1	71.3	62.1						

SPECTRUM FOR MAX PNLT

(4)	74.9	72.5	71.8	75.8	77.2	80.9	77.7	77.7	78.1	76.7
	77.8	76.7	75.9	80.2	81.8	81.2	85.3	96.2	82.8	79.6
	83.6	74.4	70.8	62.0						

	TIME	MAX.	D10	I-10	D20	I-20	D/15+M	D/30+M	(6)
P.T.	8.5	4.6							
PNL	8.0	112.6	9.0	118.2	14.0	118.5	110.4	109.3	
PNLT	(5) 8.0	116.5	3.5	122.1	13.5	122.4	114.0	113.0	
A-LEV	8.0	98.6	8.5	104.1	14.0	104.4	96.1	95.3	
N-LEV	8.0	114.3	8.0	119.6	13.5	120.0	111.6	110.8	

EPNL = 112.1 (8) (7)

The digital computer program for aircraft flyover analyses calculates a number of noise level parameters for several different noise level measures (e.g. A-level, perceived noise level, etc.). A sample of the output format is shown above. The numbered items are discussed in detail on the following pages.



1) TEXT IDENTIFICATION OF THE DATA

2) COMPOSITE PERCEIVED NOISE LEVEL (PNLC)

This is the perceived noise level calculated from the maximum RMS sound pressure levels occurring in each one-third octave band (irrespective of the point in time at which the maximums occurred). The spectrum used to calculate this value is detailed as Item 3 below.

3) MAXIMUM ONE-THIRD OCTAVE BAND SOUND PRESSURE LEVELS

This is the spectrum of maximum RMS sound pressure levels which occurred during the event. Note that all bands may not reach their maximum sound pressure level at the same point in time. The bands listed range from 50 Hz to 10,000 Hz. The first line of levels includes the 50 Hz band through the 400 Hz band; the second line includes the 500 Hz band through the 4000 Hz band; and the third line includes the 5000 Hz band through the 10,000 Hz band.

4) SPECTRUM FOR MAXIMUM TONE-CORRECTED PERCEIVED NOISE LEVEL (PNLT)

This is the spectrum at the point in time when the tone-corrected perceived noise level is at its maximum value.

5) NOISE LEVEL MEASURES ANALYZED

P.T. = pure tone correction for discrete frequency components (FAA method)<sup>1</sup>.

PNL = perceived noise level<sup>2</sup>.

PNLT = tone-corrected perceived noise level<sup>1</sup>.

A-LEV = A-weighted sound pressure level.

N-LEV = N-weighted sound pressure level. (Note that D-weighted sound pressure level is equal to N-LEV minus 7 dB.)

6) NOISE LEVEL PARAMETERS

TIME = time (in seconds) at which noise level reached its maximum value (time T = 0 is an arbitrary reference point common to all noise level measures).

MAX = maximum noise level occurring during the event.

D10 = duration of that period of the event during which the noise level is within 10 dB of its maximum value.

I-10 = noise level integrated (i.e. summed on an energy basis) over that portion of the event during which the noise level is within 10 dB of its maximum value.

$$I-10 = 10 \log_{10} \int_{t_1}^{t_2} \text{antilog} \left[ \frac{\text{noise level (t)}}{10} \right] -3$$

where:  $t_1$  = point in time, preceding the maximum noise level, at which the level is 10 dB less than the maximum.

$t_2$  = point in time, after the maximum noise level, at which the level is 10 dB less than the maximum.

D20 = duration of that period of the event during which the noise level is within 20 dB of its maximum value.

I-20 = noise level integrated (i.e. summed on an energy basis) over that period of the event during which the noise level is within 20 dB of its maximum value.

$$I-20 = 10 \log_{10} \int_{t_1}^{t_2} \text{antilog} \left[ \frac{\text{noise level (t)}}{10} \right] -3$$

where:  $t_1$  = point in time, preceding the maximum noise level, at which the level is 20 dB less than the maximum.

$t_2$  = point in time, after the maximum noise level, at which the level is 20 dB less than the maximum.

D/15 + M = duration corrected noise level (based on D10).

$$\text{duration corrected level} = \text{MAX} + 10 \log_{10} \left[ \frac{D10}{15 \text{ sec}} \right]$$

where: MAX = maximum noise level during the event,  
D10 = (as described above)

D/30 + M = duration corrected noise level (based on D20).

$$\text{duration corrected level} = \text{MAX} + 10 \log_{10} \left[ \frac{D20}{30 \text{ sec}} \right]$$



# 7) SINGLE EVENT NOISE EXPOSURE LEVEL (SENEL)<sup>3</sup>

The single event noise exposure level is defined as the A-weighted sound pressure level integrated over the period of time the noise level is within 10 dB of its maximum value. The normalizing time constant is 1 second.

$$\text{SENEL} = 10 \log_{10} \int_{t_1}^{t_2} \text{antilog} \left[ \frac{\text{A-level}(t)}{10} \right] dt - 3$$

where:  $t_1$  = point in time, preceding the maximum A-level, at which the level is 10 dBA less than the maximum.  
 $t_2$  = point in time, after the maximum A-level, at which the level is 10 dBA less than the maximum.

# 8) EFFECTIVE PERCEIVED NOISE LEVEL (EPNL)<sup>1</sup>

The effective perceived noise level is defined as the tone corrected perceived noise level (PNLT) integrated over the period of time the noise level is within 10 dB of its maximum value. The normalizing time constant is 10 seconds.

$$\text{EPNL} = 10 \log_{10} \int_{t_1}^{t_2} \text{antilog} \left[ \frac{\text{PNLT}(t)}{10} \right] dt - 13$$

where:  $t_1$  = point in time, preceding the maximum perceived noise level, at which the level is 10 PNdB less than the maximum.  
 $t_2$  = point in time, after the maximum perceived noise level, at which the level is 10 PNdB less than the maximum.

#### REFERENCES

- 1) Sperry, William C., "Aircraft Noise Evaluation," Federal Aviation Administration Report FAA-NO-68-34, 1968.
- 2) Society of Automotive Engineers, Inc., "Definitions and Procedures for Computing the Perceived Noise Level of Aircraft Noise," ARP 865A, Revised 1969.
- 3) California Department of Aeronautics, "Proposed Noise Standards for California Airports," First Draft Revision Subsequent to Public Hearings, October 26, 1970.

# A SAMPLE OF WHITE NOISE

TIME	BRITISH			FRENCH		
	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE COEF (DB)	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE CORR (DB)
0.5	-0.5	.00	-26.4	-0.4	2.90	0.0
1.0	-0.2	.00	-26.3	-0.3	3.26	0.3
1.5	-0.3	.00	-28.9	-0.4	3.17	0.2
2.0	-0.4	.00	-28.7	-0.4	2.93	0.0
2.5	-0.3	.00	-28.7	-0.4	3.00	0.0
3.0	-0.3	.00	-25.4	-0.3	3.25	0.3
3.5	-0.3	.00	-25.5	0.0	3.03	0.0
4.0	-0.4	.00	-26.5	-0.4	3.12	0.1
4.5	-0.2	.00	-26.6	-0.5	3.05	0.1
5.0	-0.5	.00	-25.8	-0.2	3.07	0.1
5.5	-0.4	.00	-24.3	-0.2	3.02	0.0
6.0	-0.4	.00	-29.4	-0.3	2.92	0.0
6.5	-0.2	.00	-25.9	-0.3	3.09	0.1
7.0	-0.2	.00	-25.9	-0.3	3.10	0.1
7.5	-0.5	.00	-29.0	-0.6	3.04	0.0
8.0	-0.2	.00	-25.8	-0.2	3.16	0.2
8.5	-0.5	.00	-25.8	-0.4	2.88	0.0
9.0	-0.4	.00	-28.3	-0.4	3.03	0.0
9.5	0.0	.00	-26.3	0.0	3.13	0.2
10.0	-0.4	.00	-26.3	-0.5	3.08	0.1
10.5	0.0	.00	-25.7	-0.4	2.93	0.0
11.0	-0.2	.00	-26.7	-0.7	3.08	0.1
11.5	-0.3	.00	-26.2	-0.3	2.90	0.0
12.0	0.0	.00	-25.9	-0.6	3.10	0.1
12.5	-0.3	.00	-27.6	-0.2	3.06	0.1
13.0	-0.3	.00	-24.4	-0.3	2.99	0.0
13.5	-0.6	.00	-25.5	-0.6	3.13	0.1
14.0	-0.4	.00	-29.3	-0.3	2.98	0.0
14.5	-0.2	.00	-26.7	-0.4	2.94	0.0
15.0	-0.5	.00	-28.3	-0.3	3.00	0.0
15.5	-0.4	.00	-24.4	-0.3	2.94	0.0
16.0	0.0	.00	-25.7	-0.2	2.95	0.0
16.5	-0.2	.00	-24.7	-0.4	3.07	0.1
17.0	0.0	.00	-26.5	-0.3	3.19	0.2
17.5	-0.4	.00	-25.1	-0.5	3.01	0.0
18.0	-0.2	.00	-28.9	-0.2	2.95	0.0
18.5	-0.4	.00	-25.7	-0.4	3.06	0.1
19.0	-0.3	.00	-23.2	-0.3	3.02	0.0
19.5	-0.2	.00	-27.5	-0.2	3.07	0.1
20.0	-0.3	.00	-25.8	-0.4	2.93	0.0
20.5	-0.2	.00	-26.7	-0.5	2.94	0.0
21.0	-0.5	.00	-26.2	-0.3	3.02	0.0
21.5	0.0	.00	-26.7	-0.4	2.95	0.0
22.0	0.0	.00	-25.1	-0.4	2.98	0.0
22.5	-0.4	.00	-26.1	-0.4	2.99	0.0
23.0	-0.5	.00	-26.2	-0.2	3.13	0.2
23.5	-0.3	.00	-26.6	-0.6	2.98	0.0
24.0	-0.4	.00	-27.9	-0.5	3.09	0.1
24.5	-0.5	.00	-28.2	-0.3	3.02	0.0
25.0	-0.4	.00	-25.5	0.0	3.12	0.1

## A SAMPLE OF WHITE NOISE

TIME	BRITISH			FRENCH		
	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE COEF (DB)	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE CORR (DB)
25.5	-0.4	.00	-22.3	-0.6	2.98	0.0
26.0	-0.5	.00	-29.0	-0.3	3.08	0.1
26.5	-0.3	.00	-25.8	-0.3	2.95	0.0
27.0	-0.3	.00	-23.7	-0.5	3.25	0.3
27.5	0.0	.00	-23.0	-0.4	3.23	0.3
28.0	-0.2	.00	-29.0	-0.4	3.36	0.4
28.5	-0.4	.00	-29.8	-0.4	3.12	0.1
29.0	0.0	.00	-27.8	-0.3	3.08	0.1
29.5	-0.3	.00	-26.5	-0.2	2.97	0.0
30.0	-0.2	.00	-26.8	-0.4	3.13	0.2
30.5	-0.7	.00	-25.1	-0.4	3.01	0.0
31.0	-0.3	.00	-27.4	0.0	3.01	0.0
31.5	-0.6	.00	-26.7	-0.6	3.16	0.2
32.0	-0.5	.00	-26.7	-0.5	3.06	0.1
32.5	-0.5	.00	-26.6	0.0	3.17	0.2
33.0	-0.2	.00	-23.9	-0.5	3.08	0.1
33.5	-0.3	.00	-27.5	-0.4	3.21	0.2
34.0	-0.2	.00	-24.4	-0.6	2.96	0.0
34.5	-0.5	.00	-26.3	-0.2	3.14	0.2
35.0	-0.4	.00	-26.7	-0.3	2.99	0.0
35.5	-0.4	.00	-26.9	-0.5	2.92	0.0
36.0	-0.3	.00	-26.5	-0.2	3.02	0.0
36.5	-0.3	.00	-26.9	-0.5	2.97	0.0
37.0	-0.4	.00	-28.1	-0.5	2.90	0.0
37.5	-0.5	.00	-29.1	-0.7	3.08	0.1
38.0	0.0	.00	-29.6	-0.6	3.23	0.3
38.5	-0.2	.00	-26.0	-0.2	2.92	0.0
39.0	-0.3	.00	-25.2	-0.5	3.23	0.3
39.5	-0.2	.00	-24.1	-0.4	3.12	0.1
40.0	-0.5	.00	-25.7	-0.3	3.13	0.1
40.5	-0.4	.00	-25.4	-0.4	3.24	0.3
41.0	0.0	.00	-25.1	-0.3	2.99	0.0
41.5	-0.4	.00	-30.0	-0.2	3.03	0.0
42.0	-0.2	.00	-27.3	-0.5	3.02	0.0
42.5	-0.5	.00	-25.7	-0.4	3.18	0.2
43.0	-0.4	.00	-28.1	-0.4	3.08	0.1
43.5	-0.4	.00	-26.3	-0.5	3.03	0.0
44.0	-0.5	.00	-24.5	-0.2	3.10	0.1
44.5	-0.5	.00	-26.5	-0.3	3.14	0.2
45.0	-0.3	.00	-27.1	-0.6	3.19	0.2
45.5	-0.4	.00	-25.9	0.0	3.08	0.1
46.0	-0.3	.00	-23.8	-0.6	2.86	-0.2
46.5	-0.2	.00	-28.6	-0.5	2.95	0.0
47.0	-0.3	.00	-24.4	-0.4	3.09	0.1
47.5	-0.6	.00	-27.7	-0.6	2.89	0.0
48.0	-0.6	.00	-26.2	-0.3	3.02	0.0
48.5	-0.6	.00	-29.9	-0.5	3.01	0.0
49.0	-0.4	.00	-24.8	-0.4	3.23	0.3
49.5	-0.5	.00	-22.6	-0.3	3.14	0.2
50.0	-0.6	.00	-25.7	-0.3	2.99	0.0

WHITE NOISE: A WEIGHTED, PEAK HOLD, 2209 SLM

TIME	PEAK SPL	TIME	PEAK SPL	TIME	PEAK SPL	TIME	PEAK SPL
0.5	106.1	25.5	105.9				
1.0	106.9	26.0	106.0				
1.5	106.6	26.5	105.9				
2.0	105.9	27.0	106.8				
2.5	106.1	27.5	105.9				
3.0	105.5	28.0	106.3				
3.5	106.1	28.5	107.2				
4.0	105.1	29.0	107.2				
4.5	105.5	29.5	105.6				
5.0	106.7	30.0	107.7				
5.5	105.9	30.5	105.7				
6.0	106.1						
6.5	106.5						
7.0	106.7						
7.5	105.3						
8.0	106.1						
8.5	106.1						
9.0	105.7						
9.5	106.3						
10.0	105.5						
10.5	106.7						
11.0	106.0						
11.5	107.1						
12.0	106.4						
12.5	107.0						
13.0	106.1						
13.5	106.1						
14.0	106.3						
14.5	105.9						
15.0	106.7						
15.5	105.9						
16.0	106.5						
16.5	106.1						
17.0	105.9						
17.5	106.3						
18.0	106.1						
18.5	106.1						
19.0	106.3						
19.5	105.9						
20.0	105.9						
20.5	107.3						
21.0	107.7						
21.5	105.9						
22.0	105.6						
22.5	106.1						
23.0	106.7						
23.5	105.6						
24.0	105.9						
24.5	106.5						
25.0	105.9						

$$M = 106.0 \text{ dB}$$

$$S = 0.50$$

$$L_{pk} - L_{rms} = 12.1 \text{ dB}$$



WHITE NOISE: A WEIGHTED, RMS SLOW, 2209 SLM

TIME	PEAK SPL	TIME	PEAK SPL	TIME	PEAK SPL	TIME	PEAK SPL
0.5	93.9	25.5	94.0				
1.0	94.0	26.0	93.9				
1.5	93.8	26.5	93.8				
2.0	93.9	27.0	93.9				
2.5	93.7	27.5	93.9				
3.0	93.9	28.0	93.9				
3.5	93.9	28.5	93.9				
4.0	93.9	29.0	93.8				
4.5	94.0	29.5	93.7				
5.0	93.9						
5.5	93.9						
6.0	94.0						
6.5	94.0						
7.0	93.9						
7.5	93.8						
8.0	93.9						
8.5	93.9						
9.0	93.9						
9.5	93.9						
10.0	93.8						
10.5	93.9						
11.0	94.0						
11.5	93.9						
12.0	93.9						
12.5	93.9						
13.0	93.9						
13.5	93.8						
14.0	93.9						
14.5	93.9						
15.0	93.9						
15.5	93.9						
16.0	93.9						
16.5	93.9						
17.0	93.9						
17.5	93.9						
18.0	93.9						
18.5	94.0						
19.0	94.0						
19.5	94.0						
20.0	93.9						
20.5	93.8						
21.0	94.0						
21.5	93.9						
22.0	93.9						
22.5	93.9						
23.0	93.9						
23.5	93.8						
24.0	93.9						
24.5	93.9						
25.0	94.0						

WHITE NOISE: LINEAR, PEAK HOLD, SLM 2209.

TIME	PEAK SPL	TIME	PEAK SPL	TIME	PEAK SPL	TIME	PEAK SPL
0.5	95.4	25.5	96.6				
1.0	95.4	26.0	96.0				
1.5	96.0	26.5	95.8				
2.0	96.2	27.0	95.5				
2.5	96.0	27.5	96.2				
3.0	95.4	28.0	95.9				
3.5	95.9	28.5	96.2				
4.0	95.5	29.0	96.1				
4.5	95.8	29.5	95.8				
5.0	96.0	30.0	95.5				
5.5	96.0	30.5	95.2				
6.0	95.4						
6.5	95.5						
7.0	96.9						
7.5	95.4						
8.0	95.4						
8.5	95.5						
9.0	96.1						
9.5	96.2						
10.0	95.3						
10.5	96.2						
11.0	96.9						
11.5	96.2						
12.0	95.9						
12.5	95.2						
13.0	96.1						
13.5	96.1						
14.0	95.5						
14.5	95.6						
15.0	95.9						
15.5	96.4						
16.0	95.7						
16.5	95.4						
17.0	96.5						
17.5	95.9						
18.0	96.0						
18.5	96.2						
19.0	96.4						
19.5	95.5						
20.0	96.5						
20.5	96.3						
21.0	95.8						
21.5	95.8						
22.0	95.8						
22.5	96.6						
23.0	97.0						
23.5	96.0						
24.0	95.2						
24.5	96.0						
25.0	96.5						

$$m = 95.9 \text{ dB}$$

$$s = 0.44 \text{ dB}$$

$$L_{pk} - L_{rms} = 10.4 \text{ dB}$$

WHITE NOISE: LINEAR, RMS SLOW, 2209 SLM.

TIME	PEAK SPL	TIME	PEAK SPL	TIME	PEAK SPL	TIME	PEAK SPL
----	-----	----	-----	----	-----	----	-----
0.5	85.4	25.5	85.4				
1.0	85.4	26.0	85.4				
1.5	85.4	26.5	85.4				
2.0	85.4	27.0	85.4				
2.5	85.4	27.5	85.4				
3.0	85.4	28.0	85.4				
3.5	85.4	28.5	85.4				
4.0	85.4	29.0	85.4				
4.5	85.4	29.5	85.4				
5.0	85.4	30.0	85.4				
5.5	85.4						
6.0	85.4						
6.5	85.4						
7.0	85.4						
7.5	85.4						
8.0	85.4						
8.5	85.4						
9.0	85.4						
9.5	85.5						
10.0	85.4						
10.5	85.4						
11.0	85.4						
11.5	85.4						
12.0	85.4						
12.5	85.4						
13.0	85.4						
13.5	85.4						
14.0	85.4						
14.5	85.4						
15.0	85.4						
15.5	85.4						
16.0	85.4						
16.5	85.5						
17.0	85.4						
17.5	85.4						
18.0	85.4						
18.5	85.4						
19.0	85.4						
19.5	85.4						
20.0	85.4						
20.5	85.4						
21.0	85.4						
21.5	85.4						
22.0	85.4						
22.5	85.4						
23.0	85.4						
23.5	85.4						
24.0	85.4						
24.5	85.4						
25.0	85.4						

APPENDIX A

MAN-Acoustics Data Set

# MAN-ACOUSTICS

South Africa - Difference in time  
integrals of A-weighted sound level  
obtained with impulse and slow  
averaging times.

<u>Event</u>	<u><math>\Delta_{SA}</math> dB</u>
1	1.4
2	1.4
3	1.3
4	3.1
5	1.4
6	1.3
7	1.1
8	0.5
9	0.6
10	1.1
11	1.9
12	0.8
13	1.0
14	2.5
15	3.9
16	0.6
17	1.6
18	0.4
19	1.2
20	2.9
21	2.6
22	0.8
23	2.4
24	1.6



## MAN-ACOUSTICS #1: SIMULATION - TRN W/ NO SLAP (STANDARD)

TIME	BRITISH			FRENCH		
	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE COEF (DB)	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE CORR (DB)
0.5	-36.8	.00	-26.8	-34.0	4.16	1.3
1.0	-34.0	.00	-14.0	-33.4	4.41	1.6
1.5	-22.3	5.80	7.6	-22.3	7.33	5.0
2.0	-6.6	.06	-11.7	-6.9	3.73	0.8
2.5	-2.5	.00	-24.0	-2.3	2.68	-0.4
3.0	-0.4	.00	-25.4	-0.7	2.81	-0.2
3.5	0.0	.00	-31.5	0.0	2.70	-0.3
4.0	0.0	.00	-29.3	-0.4	2.70	-0.3
4.5	0.0	.00	-24.6	0.0	2.70	-0.3
5.0	-0.2	.00	-31.9	-0.4	2.69	-0.3
5.5	0.0	.00	-28.1	-0.3	2.75	-0.3
6.0	0.0	.00	-33.2	-0.4	2.72	-0.3
6.5	-0.2	.00	-32.8	0.0	2.75	-0.3
7.0	-0.2	.00	-28.0	-0.5	2.68	-0.4
7.5	0.0	.00	-30.1	0.0	2.70	-0.3
8.0	-0.2	.00	-30.3	-0.5	2.72	-0.3
8.5	0.0	.00	-30.2	0.0	2.78	-0.3
9.0	0.0	.00	-29.0	-0.3	2.64	-0.4
9.5	-0.2	.00	-29.4	0.0	2.83	-0.2
10.0	0.0	.00	-27.0	-0.4	2.69	-0.4
10.5	-0.2	.00	-27.6	0.0	2.77	-0.3
11.0	-0.3	.00	-32.5	-0.3	2.60	-0.5
11.5	0.0	.00	-30.1	0.0	2.81	-0.2
12.0	0.0	.00	-26.1	-0.3	2.75	-0.3
12.5	0.0	.00	-28.0	-0.3	2.92	0.0
13.0	-0.5	.00	-25.3	-0.6	2.65	-0.4
13.5	-0.7	.00	-30.0	-0.8	2.91	0.0
14.0	-2.6	.00	-22.7	-2.4	2.66	-0.4
14.5	-6.9	.06	-11.7	-7.2	3.50	0.6
15.0	-21.6	4.77	6.8	-20.8	7.78	5.5
15.5	-35.2	.00	-20.0	-35.3	3.51	0.6
16.0	-36.0	.00	-27.3	-36.3	3.96	1.1
16.5	-36.3	.00	-28.8	-36.3	3.03	0.0
17.0	-36.5	.00	-28.4	-36.4	2.99	0.0
17.5	-37.0	.00	-24.3	-35.6	4.12	1.3

## MAN-ACOUSTICS #2. SIMULATION - INN UZ LT SLAP AT 10 BPS

TIME	BRITISH			FRENCH		
	0.5 SEC RMS (REF: MAX)	IMPULSE COEF	IMPULSE COEF (DB)	0.5 SEC RMS (REF: MAX)	IMPULSE COEF	IMPULSE CORR (DB)
0.5	-37.6	.00	-28.3	-37.7	2.99	0.0
1.0	-37.4	.00	-25.5	-38.0	3.87	1.0
1.5	-37.8	.00	-29.0	-36.1	3.15	0.2
2.0	-37.4	.00	-28.8	-36.8	2.98	0.0
2.5	-37.5	.00	-29.7	-36.7	2.86	-0.2
3.0	-34.3	.23	-6.3	-33.3	5.14	2.4
3.5	-15.0	1.89	2.8	-15.2	7.21	4.8
4.0	-6.7	.00	-17.2	-6.3	3.33	0.4
4.5	-2.9	.00	-21.8	-3.1	2.84	-0.2
5.0	-1.0	.00	-24.0	-1.0	2.85	-0.2
5.5	-0.3	.00	-29.4	0.0	2.61	-0.4
6.0	0.0	.00	-26.8	-0.4	3.00	0.0
6.5	-0.4	.00	-27.9	0.0	2.70	-0.3
7.0	0.0	.00	-31.3	-0.4	3.00	0.0
7.5	-0.5	.00	-29.8	0.0	2.67	-0.4
8.0	-0.5	.00	-28.3	-0.6	2.82	-0.2
8.5	-0.2	.00	-29.6	0.0	2.94	0.0
9.0	-0.4	.00	-28.7	-0.4	2.71	-0.3
9.5	-0.3	.00	-28.5	-0.3	2.70	-0.3
10.0	-0.2	.00	-28.5	-0.2	2.63	-0.4
10.5	0.0	.00	-30.0	-0.4	3.11	0.1
11.0	0.0	.00	-24.0	0.0	2.74	-0.3
11.5	-0.3	.00	-28.8	-0.6	3.13	0.2
12.0	-0.5	.00	-26.6	0.0	2.74	-0.3
12.5	-0.3	.00	-27.7	-0.3	2.80	-0.2
13.0	-0.2	.00	-29.4	0.0	2.77	-0.3
13.5	-0.2	.00	-32.0	-0.5	2.84	-0.2
14.0	-0.2	.00	-26.9	0.0	2.83	-0.2
14.5	0.0	.00	-29.9	0.0	2.68	-0.4
15.0	0.0	.00	-29.9	0.0	2.91	0.0
15.5	-2.8	.00	-21.6	-2.2	3.02	0.0
16.0	-8.0	.19	-7.1	-8.6	4.64	1.9
16.5	-34.7	.46	-3.3	-34.3	3.71	0.8
17.0	-36.0	3.28	5.2	-34.9	7.72	5.4
17.5	-37.1	.00	-28.2	-36.0	5.23	2.5

## MAN-ACOUSTICS #3: SIMULATION - TRN W/ MOD SLAP AT 10 BPS

TIME	BRITISH			FRENCH		
	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE COEF (DB)	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE CORR (DB)
0.5	-36.6	.00	-27.0	-35.7	3.08	0.1
1.0	-36.4	.00	-28.3	-35.6	3.67	0.8
1.5	-36.3	.00	-28.1	-37.5	2.49	-0.6
2.0	-35.9	.00	-30.9	-36.6	3.98	1.1
2.5	-36.1	.00	-27.2	-37.4	3.36	0.4
3.0	-35.9	.00	-27.0	-36.7	2.88	0.0
3.5	-32.8	.31	-5.0	-32.9	6.19	3.7
4.0	-22.9	.66	-1.8	-22.9	5.57	2.9
4.5	-11.3	.24	-6.1	-11.4	4.31	1.5
5.0	-5.0	.07	-11.2	-4.9	3.83	0.9
5.5	-2.6	.00	-14.6	-2.1	4.17	1.3
6.0	-0.8	.00	-19.5	-0.5	4.21	1.4
6.5	0.0	.00	-16.0	-0.3	3.91	1.0
7.0	-0.8	.00	-22.4	0.0	3.41	0.5
7.5	-0.3	.00	-18.5	-0.3	3.66	0.8
8.0	-0.3	.00	-17.5	-0.3	4.13	1.3
8.5	-0.4	.00	-21.2	-0.3	4.21	1.4
9.0	-0.3	.00	-21.0	-0.3	4.09	1.3
9.5	-0.3	.00	-19.2	-0.4	3.56	0.6
10.0	-0.5	.00	-17.0	-0.2	3.28	0.3
10.5	-0.5	.00	-17.4	0.0	3.43	0.5
11.0	-0.2	.00	-17.7	-0.2	4.00	1.1
11.5	-0.6	.00	-19.1	-0.2	3.14	0.2
12.0	-0.3	.00	-17.9	-0.2	3.56	0.6
12.5	-0.5	.00	-18.1	0.0	3.29	0.3
13.0	-0.5	.00	-18.1	-0.4	3.56	0.6
13.5	-0.4	.00	-16.8	-0.2	3.30	0.3
14.0	-0.5	.00	-18.9	-0.5	3.58	0.7
14.5	-0.6	.00	-18.6	-0.2	3.52	0.6
15.0	-0.3	.00	-21.2	-0.3	4.95	2.2
15.5	-0.5	.00	-15.8	0.0	3.89	1.0
16.0	-0.5	.00	-18.8	-0.3	3.50	0.6
16.5	-0.4	.00	-15.6	-0.2	3.88	1.0
17.0	-3.1	.08	-10.7	-2.7	3.70	0.8
17.5	-7.2	.12	-8.9	-6.8	3.97	1.1
18.0	-16.6	3.03	4.8	-15.4	7.09	4.7
18.5	-34.8	.00	-20.3	-32.5	3.66	0.8
19.0	-36.1	.00	-25.2	-37.4	2.91	0.0

## MAN-ACOUSTICS #4 SIMULATION - TRN N/ HVY CLAP AT 10 BPS

TIME	BRITISH			FRENCH		
	0.5 SEC RMS (RE: MAX)	IMPULSE CDEF	IMPULSE CDEF (DB)	0.5 SEC RMS (RE: MAX)	IMPULSE CDEF	IMPULSE CORR (DB)
0.5	-31.1	.00	-26.6	-36.8	2.96	0.0
1.0	-31.1	.00	-24.6	-34.6	2.63	-0.4
1.5	-31.3	.00	-27.1	-35.2	4.34	1.5
2.0	-30.9	.00	-28.4	-34.8	2.42	-0.7
2.5	-30.8	.00	-27.5	-35.2	2.82	-0.2
3.0	-30.7	.00	-28.4	-35.2	3.18	0.2
3.5	-30.8	.00	-25.8	-34.2	2.45	-0.6
4.0	-29.3	.43	-3.7	-31.4	5.04	2.3
4.5	-19.1	212.37	23.3	-19.8	45.31	48.4
5.0	-6.9	14.29	11.6	-7.0	10.14	8.2
5.5	-2.7	6.67	8.2	-2.4	7.22	4.8
6.0	0.7	3.91	5.9	-0.7	6.36	3.8
6.5	-0.3	2.03	3.2	0.0	5.91	3.3
7.0	0.0	2.47	3.9	0.0	5.93	3.3
7.5	0.0	2.88	4.6	-0.2	6.03	3.5
8.0	0.0	2.86	4.6	0.0	6.15	3.6
8.5	0.0	2.14	3.3	0.0	5.70	3.1
9.0	-0.2	3.08	4.9	-0.2	6.59	4.1
9.5	-0.2	3.31	5.2	-0.4	5.96	3.4
10.0	0.0	3.07	4.9	-0.2	6.24	3.7
10.5	-0.3	2.94	4.7	-0.2	5.89	3.3
11.0	-0.4	3.53	5.5	0.0	5.94	3.4
11.5	-0.3	3.33	5.2	0.0	5.83	3.2
12.0	-0.4	2.63	4.2	0.0	6.13	3.6
12.5	0.2	2.76	4.4	0.0	5.98	3.4
13.0	0.0	2.51	4.0	0.0	6.06	3.5
13.5	-0.2	4.62	6.6	-0.2	6.20	3.7
14.0	0.4	3.41	5.3	-0.5	6.06	3.5
14.5	0.0	3.90	5.9	0.0	6.00	3.4
15.0	0.0	3.29	5.2	0.0	5.74	3.1
15.5	-0.2	4.63	6.8	0.0	6.11	3.6
16.0	-0.6	3.51	5.5	0.0	6.10	3.6
16.5	-0.9	3.32	5.2	-0.5	6.41	3.9
17.0	-2.9	10.92	10.4	-2.5	6.97	4.5
17.5	-7.6	26.84	14.3	-7.4	9.49	7.4
18.0	-27.1	2.93	4.7	-25.7	6.36	3.8
18.5	-30.8	.00	-28.8	-32.7	2.64	-0.4
19.0	-31.0	.00	-30.2	-34.4	3.14	0.2
19.5	-30.8	.00	-29.0	-34.2	3.15	0.2

## MAN-ACOUSTICS #5: SIMULATION - TRN W/ MOD SLAP AT 6 BPS

TIME	BRITISH			FRENCH		
	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE COEF (DB)	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE CORR (DB)
0.5	-36.0	.00	-29.1	-38.1	3.02	0.0
1.0	-35.1	.00	-21.9	-37.3	3.12	0.1
1.5	-30.3	.00	-13.5	-30.9	4.28	1.5
2.0	-17.9	1.25	1.0	-18.0	6.28	3.8
2.5	-9.5	.20	-7.0	-9.8	3.83	1.0
3.0	-5.0	.00	-20.5	-4.9	3.21	0.2
3.5	-2.4	.00	-24.0	-2.5	2.96	0.0
4.0	-0.5	.00	-18.8	-0.6	3.15	0.2
4.5	0.0	.00	-17.6	-0.3	3.26	0.3
5.0	-0.6	.00	-16.3	-0.3	3.50	0.6
5.5	-0.6	.00	-17.0	0.0	3.15	0.2
6.0	0.0	.00	-19.5	-0.3	3.13	0.2
6.5	-0.4	.00	-26.1	-0.2	2.81	-0.2
7.0	-0.4	.00	-22.0	-0.3	3.10	0.1
7.5	-0.2	.00	-17.4	0.0	3.20	0.2
8.0	0.0	.00	-15.0	-0.3	3.80	0.9
8.5	0.0	.00	-15.6	-0.2	3.44	0.5
9.0	-0.5	.00	-17.1	-0.3	3.50	0.6
9.5	-0.4	.00	-19.4	-0.2	3.29	0.3
10.0	-0.4	.00	-21.8	-0.4	3.56	0.6
10.5	-0.6	.00	-23.8	0.0	3.06	0.1
11.0	-0.3	.00	-26.3	-0.6	2.97	0.0
11.5	-0.2	.00	-19.5	-0.2	3.00	0.0
12.0	0.0	.00	-22.2	-0.4	3.17	0.2
12.5	-0.5	.00	-19.8	-0.4	3.49	0.6
13.0	-0.2	.00	-18.5	-0.5	3.61	0.7
13.5	0.0	.00	-17.1	-0.3	3.50	0.6
14.0	-0.3	.00	-17.3	0.0	3.84	1.0
14.5	-0.8	.00	-15.4	-0.7	3.67	0.8
15.0	-4.1	.08	-10.5	-4.1	3.96	1.1
15.5	-11.0	.62	-2.0	-10.9	5.70	3.1
16.0	-32.5	.20	-6.9	-32.3	5.28	2.6
16.5	-35.3	.00	-24.6	-37.1	3.17	0.2
17.0	-35.5	.00	-30.6	-36.8	3.30	0.4



## MAN-ACOUSTICS #16 SIMULATION - TRN W/ MOD SLAP AT 18 BPS

TIME	BRITISH			FRENCH		
	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE COEF (DB)	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE CORR (DB)
0.5	-35.9	.00	-27.5	-37.8	3.45	0.5
1.0	-35.3	.00	-18.3	-36.0	4.07	1.2
1.5	-31.0	.00	-13.8	-31.0	3.46	0.5
2.0	-15.1	2.44	3.9	-14.9	8.18	5.9
2.5	-7.8	.07	-11.0	-7.4	3.87	1.0
3.0	-4.5	.00	-12.8	-4.3	3.63	0.7
3.5	-2.1	.00	-13.5	-1.8	3.27	0.3
4.0	-0.2	.00	-15.8	-0.4	3.14	0.2
4.5	-0.3	.00	-16.4	0.0	3.26	0.3
5.0	-0.7	.00	-18.9	-0.4	3.15	0.2
5.5	-0.5	.00	-17.9	-0.2	3.04	0.1
6.0	0.0	.00	-18.8	-0.3	3.23	0.3
6.5	-0.5	.00	-18.9	-0.2	3.20	0.2
7.0	-0.2	.00	-21.0	-0.2	3.21	0.2
7.5	-0.2	.00	-20.4	-0.2	3.10	0.1
8.0	0.0	.00	-16.9	-0.3	3.01	0.0
8.5	-0.6	.00	-13.0	-0.2	2.96	0.0
9.0	0.0	.00	-16.0	-0.3	3.08	0.1
9.5	0.0	.00	-18.2	0.0	3.05	0.1
10.0	-0.3	.00	-17.1	-0.4	3.05	0.1
10.5	0.0	.00	-15.4	0.0	3.00	0.0
11.0	-0.2	.00	-15.4	-0.2	3.17	0.2
11.5	-0.7	.00	-14.5	0.0	3.11	0.1
12.0	0.0	.00	-17.7	0.0	3.06	0.1
12.5	-0.3	.00	-18.8	-0.2	3.29	0.3
13.0	-0.3	.00	-17.9	-0.2	3.00	0.0
13.5	-0.2	.00	-19.3	0.0	3.13	0.2
14.0	-0.2	.00	-15.3	-0.2	3.24	0.3
14.5	-1.0	.00	-16.6	-0.3	3.16	0.2
15.0	-2.5	.00	-15.2	-2.2	3.48	0.6
15.5	-8.4	.40	-3.9	-8.1	4.38	1.6
16.0	-29.0	.21	-6.6	-28.8	4.31	1.5
16.5	-35.0	.00	-20.1	-36.5	2.80	-0.2
17.0	-36.1	.00	-25.0	-37.2	2.97	0.0
17.5	-35.9	.00	-26.8	-38.0	3.61	0.7

## MAN-ACOUSTICS #7: SIMULATION - TRN W/ MOD SLAP AT 10 BPS

TIME	BRITISH			FRENCH		
	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE COEF (DB)	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE CORR (DB)
0.5	-36.5	.00	-26.8	-37.9	3.29	0.3
1.0	-36.4	.00	-27.8	-35.7	3.64	0.7
1.5	-32.2	1.11	0.5	-32.7	4.61	1.8
2.0	-13.6	1.26	1.0	-13.9	7.82	5.5
2.5	-5.8	.34	-4.6	-5.9	4.52	1.7
3.0	-1.9	.00	-17.9	-1.9	2.80	-0.2
3.5	-0.3	.00	-20.1	-0.5	2.98	0.0
4.0	-0.3	.00	-21.3	0.0	3.22	0.3
4.5	-0.3	.00	-16.7	-0.5	3.27	0.3
5.0	-0.4	.00	-24.0	-0.4	2.70	-0.3
5.5	-0.2	.00	-15.5	-0.4	3.15	0.2
6.0	-0.3	.00	-18.2	-0.2	3.21	0.2
6.5	-0.4	.00	-24.3	-0.6	2.96	0.0
7.0	-0.4	.00	-22.3	-0.4	2.81	-0.2
7.5	-0.2	.00	-15.3	-0.4	3.30	0.3
8.0	-0.3	.00	-20.2	-0.4	3.22	0.3
8.5	-0.5	.00	-21.1	-0.4	2.80	-0.2
9.0	0.0	.00	-15.9	-0.6	2.95	0.0
9.5	-0.3	.00	-16.9	0.0	3.13	0.2
10.0	-0.2	.00	-21.3	-0.4	3.38	0.4
10.5	-0.4	.00	-22.1	-0.3	2.76	-0.3
11.0	0.0	.00	-20.6	-0.5	3.18	0.2
11.5	-0.2	.00	-16.1	0.0	3.32	0.4
12.0	-0.3	.00	-20.8	-0.3	3.37	0.4
12.5	-0.5	.00	-24.7	-0.5	2.77	-0.3
13.0	0.0	.00	-19.0	-0.5	3.05	0.1
13.5	-0.2	.00	-16.9	-0.2	3.36	0.4
14.0	-2.5	.06	-11.7	-2.5	3.90	1.0
14.5	-8.5	.35	-4.5	-8.9	4.76	2.0
15.0	-26.6	4.03	6.1	-27.4	7.42	5.1
15.5	-35.9	.00	-22.4	-37.5	3.28	0.3
16.0	-36.3	.00	-28.2	-38.3	2.90	0.0

## MAN-ACOUSTICS #18 BOEING 747 TAKEOFF

TIME	BRITISH			FRENCH		
	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE COEF (DB)	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE CORR (DB)
0.5	-25.5	.00	-18.9	-17.8	2.70	-0.3
1.0	-22.2	.00	-15.8	-16.7	2.69	-0.4
1.5	-19.6	.00	-18.9	-13.0	3.06	0.1
2.0	-17.7	.00	-17.4	-10.2	2.84	-0.2
2.5	-16.2	.00	-20.6	-6.5	3.03	0.0
3.0	-14.7	.00	-22.4	-4.8	2.68	-0.4
3.5	-11.7	.00	-18.0	-4.4	2.51	-0.5
4.0	-11.8	.00	-20.9	-4.9	2.58	-0.5
4.5	-13.6	.00	-20.9	-4.8	2.88	0.0
5.0	-14.2	.00	-18.4	-5.2	2.83	-0.2
5.5	-13.1	.00	-20.8	-5.0	2.59	-0.5
6.0	-15.3	.00	-25.1	-5.0	2.74	-0.3
6.5	-15.3	.00	-20.8	-4.8	2.84	-0.2
7.0	-15.2	.00	-25.5	-5.1	2.92	0.0
7.5	-13.8	.00	-19.6	-4.7	2.62	-0.4
8.0	-10.4	.00	-18.4	-5.2	2.74	-0.3
8.5	-9.3	.00	-18.5	-5.7	3.10	0.1
9.0	-10.5	.00	-21.4	-4.6	2.55	-0.5
9.5	-12.3	.00	-17.9	-4.9	2.59	-0.5
10.0	-10.7	.00	-19.1	-4.1	2.77	-0.3
10.5	-8.5	.00	-26.8	-4.4	2.96	0.0
11.0	-7.8	.00	-24.6	-4.8	2.73	-0.3
11.5	-6.7	.00	-23.4	-4.2	2.88	0.0
12.0	-7.8	.00	-20.8	-5.0	3.06	0.1
12.5	-8.4	.00	-21.0	-4.9	2.80	-0.2
13.0	-8.1	.00	-21.2	-5.9	2.97	0.0
13.5	-5.4	.00	-26.6	-5.0	3.06	0.1
14.0	-5.0	.00	-26.5	-5.2	2.76	-0.3
14.5	-4.4	.00	-22.2	-4.9	3.34	0.4
15.0	-4.5	.00	-16.6	-3.1	2.92	0.0
15.5	-3.9	.00	-19.8	-3.4	2.89	0.0
16.0	-4.5	.00	-20.1	-3.3	2.92	0.0
16.5	-3.1	.00	-19.6	-3.1	2.92	0.0
17.0	-3.6	.00	-15.4	-3.4	2.87	0.0
17.5	-2.3	.00	-25.6	-3.2	3.05	0.1
18.0	-2.6	.00	-25.0	-2.9	2.72	-0.3
18.5	-2.8	.00	-18.5	-3.1	2.84	-0.2
19.0	-1.6	.00	-28.3	-2.0	3.12	0.1
19.5	0.0	.00	-21.9	-1.4	2.80	-0.2
20.0	-1.8	.00	-22.2	-2.8	2.97	0.0
20.5	-1.1	.00	-25.5	-2.3	3.13	0.2
21.0	-1.8	.00	-23.2	-2.5	2.92	0.0
21.5	-1.2	.00	-23.9	-1.6	2.96	0.0
22.0	-1.3	.00	-27.6	-1.3	2.76	-0.3
22.5	-1.5	.00	-25.7	-1.7	2.96	0.0
23.0	-1.2	.00	-26.0	-1.7	3.04	0.1
23.5	-1.0	.00	-27.2	-0.9	2.81	-0.2
24.0	-2.3	.00	-25.1	-1.6	2.93	0.0
24.5	-1.9	.00	-21.9	-1.6	2.95	0.0
25.0	-2.3	.00	-21.2	-1.6	2.94	0.0

## MAN-ACOUSTICS #8: BOEING 747 TAKEOFF

TIME	BRITISH			FRENCH		
	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE COEF (DB)	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE CORR (DB)
25.5	-1.9	.00	-24.2	-0.9	2.83	-0.2
26.0	-1.7	.00	-24.5	-0.7	2.85	-0.2
26.5	-1.6	.00	-29.0	-1.6	2.94	0.0
27.0	-1.7	.00	-22.8	-2.5	2.82	-0.2
27.5	-1.6	.00	-27.1	-2.1	2.94	0.0
28.0	-1.8	.00	-28.3	-1.7	2.92	0.0
28.5	-1.5	.00	-23.3	-1.3	3.43	0.5
29.0	-2.1	.00	-22.6	-1.3	3.01	0.0
29.5	-2.8	.00	-20.7	-1.1	2.84	-0.2
30.0	-2.6	.00	-22.1	0.0	2.70	-0.3
30.5	-1.7	.00	-25.2	-0.7	2.90	0.0
31.0	-2.1	.00	-21.7	-0.7	2.72	-0.3
31.5	-2.7	.00	-21.8	-0.6	2.87	0.0
32.0	-2.9	.00	-20.9	-0.6	2.85	-0.2
32.5	-3.4	.00	-22.8	-0.3	2.98	0.0
33.0	-4.0	.00	-22.4	-1.9	2.76	-0.3
33.5	-4.2	.00	-26.1	-0.9	2.94	0.0
34.0	-3.8	.00	-26.2	-0.6	2.87	0.0
34.5	-4.3	.00	-17.9	-1.4	3.10	0.1
35.0	-6.2	.00	-13.7	-1.6	2.85	-0.2
35.5	-7.1	.00	-17.0	-1.4	3.03	0.0
36.0	-6.2	.00	-24.2	-1.0	2.72	-0.3
36.5	-8.2	.00	-18.1	-0.4	2.72	-0.3
37.0	-7.7	.00	-20.9	-1.0	2.79	-0.2
37.5	-7.1	.00	-24.3	-1.2	2.80	-0.2
38.0	-8.5	.00	-17.7	-0.6	2.86	-0.2
38.5	-8.4	.00	-19.5	-0.9	2.64	-0.4
39.0	-9.4	.00	-18.6	-1.5	2.64	-0.4
39.5	-10.1	.00	-18.2	-2.3	3.04	0.0
40.0	-12.6	.00	-16.0	-2.4	2.87	0.0
40.5	-11.3	.00	-18.7	-2.4	2.42	-0.7
41.0	-11.6	.00	-17.6	-2.8	2.68	-0.4
41.5	-11.3	.00	-16.0	-2.0	2.66	-0.4
42.0	-13.1	.00	-16.5	-2.3	2.92	0.0
42.5	-14.9	.06	-11.8	-2.1	2.42	-0.7
43.0	-14.4	.00	-14.5	-2.7	2.51	-0.5
43.5	-12.9	.00	-20.3	-2.8	2.38	-0.7
44.0	-14.5	.00	-15.2	-2.5	2.43	-0.6
44.5	-16.7	.00	-13.2	-3.1	2.74	-0.3
45.0	-17.1	.00	-16.4	-4.1	2.77	-0.3
45.5	-15.5	.00	-13.5	-5.0	2.85	-0.2
46.0	-17.2	.12	-9.2	-5.9	2.74	-0.3
46.5	-21.0	.13	-8.8	-6.7	2.74	-0.3
47.0	-23.0	.00	-18.1	-8.7	2.84	-0.2
47.5	-25.1	.00	-14.9	-10.5	3.04	0.1
48.0	-28.2	.00	-14.5	-15.1	2.64	-0.4
48.5	-29.6	.00	-18.1	-15.5	2.48	-0.6
49.0	-32.9	.06	-12.0	-18.0	2.61	-0.4

## MAN-Acoustics #9: DC-B TAKEOFF

TIME	BRITISH			FRENCH		
	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE COEF (DB)	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE CORR (DB)
0.5	-40.7	.00	-28.9	-41.0	2.86	-0.2
1.0	-40.3	.00	-28.1	-41.7	3.59	0.7
1.5	-40.4	.00	-24.5	-39.7	3.44	0.5
2.0	-39.3	.00	-19.9	-39.3	2.90	0.0
2.5	-35.3	.06	-11.7	-34.3	2.93	0.0
3.0	-30.2	.00	-14.0	-28.2	3.22	0.3
3.5	-26.7	.00	-21.1	-24.4	2.90	0.0
4.0	-27.8	.00	-22.3	-24.5	2.58	-0.5
4.5	-25.9	.00	-17.8	-24.9	2.63	-0.4
5.0	-24.8	.00	-24.2	-22.4	2.97	0.0
5.5	-22.9	.00	-24.4	-22.0	2.91	0.0
6.0	-22.5	.00	-20.2	-21.6	2.91	0.0
6.5	-21.6	.00	-19.9	-20.0	3.19	0.2
7.0	-16.9	.00	-12.6	-16.2	2.79	-0.2
7.5	-13.3	.00	-19.9	-13.0	3.00	0.0
8.0	-9.5	.00	-19.7	-8.8	3.19	0.2
8.5	-7.9	.00	-20.4	-8.1	2.85	-0.2
9.0	-9.1	.00	-16.1	-8.9	3.10	0.1
9.5	-9.1	.00	-23.6	-9.0	2.80	-0.2
10.0	-9.4	.00	-24.2	-9.1	2.86	-0.2
10.5	-9.2	.00	-19.6	-8.7	2.78	-0.2
11.0	-9.0	.00	-23.4	-9.0	2.88	0.0
11.5	-8.2	.00	-19.2	-7.9	3.03	0.0
12.0	-9.4	.00	-19.5	-8.3	2.87	0.0
12.5	-8.8	.00	-22.4	-10.0	2.84	-0.2
13.0	-8.4	.00	-19.7	-9.1	2.81	-0.2
13.5	-10.2	.00	-16.3	-9.8	2.90	0.0
14.0	-12.1	.00	-19.9	-10.3	2.57	-0.5
14.5	-7.7	.00	-12.4	-8.9	3.13	0.2
15.0	-6.0	.00	-21.8	-7.7	2.81	-0.2
15.5	-6.6	.00	-21.7	-8.3	2.96	0.0
16.0	-8.8	.00	-23.0	-8.8	2.74	-0.3
16.5	-7.4	.00	-19.2	-8.6	2.92	0.0
17.0	-9.7	.00	-27.2	-8.6	2.80	-0.2
17.5	-8.9	.00	-19.9	-9.0	2.86	-0.2
18.0	-4.9	.00	-19.7	-7.7	2.88	0.0
18.5	-5.6	.00	-22.1	-7.6	2.88	0.0
19.0	-6.6	.00	-17.9	-8.4	3.10	0.1
19.5	-5.3	.00	-16.7	-8.3	3.01	0.0
20.0	-5.5	.00	-18.0	-8.6	2.84	-0.2
20.5	-6.1	.00	-20.9	-8.3	2.90	0.0
21.0	-6.5	.00	-19.6	-8.5	3.01	0.0
21.5	-3.7	.00	-18.4	-6.7	3.19	0.2
22.0	-3.9	.00	-21.2	-6.0	2.93	0.0
22.5	-3.1	.00	-21.4	-6.6	2.87	0.0
23.0	-4.4	.08	-10.9	-6.5	2.81	-0.2
23.5	-2.4	.07	-11.3	-4.4	3.38	0.4
24.0	-1.9	.10	-17.9	-4.8	3.01	0.0
24.5	-1.6	.00	-21.5	-5.0	2.92	0.0
25.0	-2.3	.00	-19.4	-4.8	3.11	0.1



## MAN-AcouSTICS #9: DC-8 TAKEOFF

TIME	BRITISH			FRENCH		
	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE COEF (DB)	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE CORR (DB)
25.5	-1.2	.00	-19.6	-3.8	3.08	0.1
26.0	-3.9	.00	-27.1	-5.6	3.11	0.1
26.5	-2.2	.00	-27.3	-5.8	2.99	0.0
27.0	-2.3	.00	-22.2	-4.4	2.88	0.0
27.5	-3.4	.00	-21.8	-4.7	2.92	0.0
28.0	-2.4	.00	-23.9	-5.3	2.92	0.0
28.5	-3.1	.00	-22.5	-5.4	2.94	0.0
29.0	-2.1	.00	-19.7	-4.8	3.02	0.0
29.5	-3.0	.00	-22.4	-5.4	2.96	0.0
30.0	-2.5	.00	-21.6	-5.3	2.80	-0.2
30.5	-1.4	.00	-21.0	-4.7	2.99	0.0
31.0	-2.3	.00	-21.5	-5.0	3.00	0.0
31.5	-1.5	.00	-17.5	-4.1	3.06	0.1
32.0	-1.1	.00	-13.7	-4.2	2.90	0.0
32.5	-1.0	.00	-13.9	-3.9	2.97	0.0
33.0	-1.8	.00	-21.1	-4.3	3.02	0.0
33.5	-3.2	.00	-21.7	-5.6	2.80	-0.2
34.0	-1.7	.00	-14.6	-4.6	2.91	0.0
34.5	-2.1	.00	-25.9	-5.6	2.84	-0.2
35.0	-1.5	.00	-23.0	-4.6	3.02	0.0
35.5	-2.8	.00	-22.9	-4.4	3.22	0.3
36.0	-1.2	.00	-22.4	-4.4	3.11	0.1
36.5	-0.3	.00	-29.5	-3.7	2.91	0.0
37.0	-0.5	.00	-21.1	-3.5	3.06	0.1
37.5	-1.7	.00	-18.6	-4.0	2.78	-0.2
38.0	-3.8	.00	-20.2	-6.2	3.05	0.1
38.5	-2.0	.00	-24.2	-5.4	3.03	0.0
39.0	-1.6	.00	-19.4	-3.7	3.17	0.2
39.5	-2.7	.00	-18.5	-4.7	3.22	0.3
40.0	-0.9	.00	-25.8	-4.0	2.72	-0.3
40.5	-1.4	.00	-23.4	-4.5	2.86	-0.2
41.0	-0.8	.00	-24.0	-2.9	3.10	0.1
41.5	0.0	.00	-22.9	-3.0	3.05	0.1
42.0	-1.1	.00	-18.4	-3.0	3.17	0.2
42.5	-2.1	.00	-13.6	-3.7	2.89	0.0
43.0	-2.6	.00	-24.0	-2.9	2.73	-0.3
43.5	-1.1	.00	-23.5	-3.2	2.68	-0.4
44.0	-0.8	.00	-18.9	-2.1	2.77	-0.3
44.5	-1.8	.00	-19.1	-2.6	3.00	0.0
45.0	-2.8	.00	-18.3	-2.5	3.09	0.1
45.5	-1.4	.00	-20.7	-1.4	2.95	0.0
46.0	-1.0	.00	-21.0	-1.0	3.06	0.1
46.5	-3.9	.00	-15.3	-1.9	3.04	0.1
47.0	-3.9	.00	-18.2	-1.9	2.79	-0.2
47.5	-3.9	.00	-19.3	-3.1	3.03	0.0
48.0	-6.2	.00	-22.6	-4.0	2.86	-0.2
48.5	-4.5	.00	-12.5	-2.4	3.00	0.0
49.0	-2.5	.00	-14.1	-1.4	2.82	-0.2
49.5	-4.2	.00	-22.3	-2.4	2.93	0.0
50.0	-4.2	.00	-19.7	-1.7	2.73	-0.3

## MAN-AcouSTICS #19. DC-B TAKEOFF

TIME	BRITISH			FRENCH		
	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE COEF (DB)	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE CORR (DB)
50.5	-6.1	.00	-18.2	-1.7	2.92	0.0
51.0	-4.1	.00	-15.6	-1.6	2.89	0.0
51.5	-5.4	.00	-14.0	-1.0	2.81	-0.2
52.0	-7.1	.00	-12.8	0.0	2.56	-0.5
52.5	-6.2	.00	-14.7	-0.4	2.66	-0.4
53.0	-5.6	.00	-17.7	-0.8	2.72	-0.3
53.5	-5.2	.00	-18.0	-0.9	2.62	-0.4
54.0	-5.2	.00	-15.9	-0.4	2.62	-0.4
54.5	-4.4	.00	-16.8	-0.8	2.85	-0.2
55.0	-4.8	.00	-19.4	-0.9	2.65	-0.4
55.5	-6.2	.00	-19.8	-0.8	2.71	-0.3
56.0	-6.2	.00	-15.5	-1.2	2.72	-0.3
56.5	-7.0	.00	-19.8	-2.1	2.65	-0.4
57.0	-7.6	.00	-14.8	-2.0	2.77	-0.3
57.5	-7.7	.00	-13.8	-1.9	2.58	-0.5
58.0	-7.3	.00	-12.2	-0.8	2.79	-0.2
58.5	-7.4	.07	-11.0	-0.9	2.71	-0.3
59.0	-7.1	.00	-18.2	-1.8	2.64	-0.4
59.5	-9.1	.00	-12.4	-2.4	2.69	-0.3
60.0	-12.0	.00	-14.6	-2.9	3.02	0.0
60.5	-11.1	.00	-15.0	-2.9	2.50	-0.6

## MAN-ACOUSTICS #10: BOEING 747 APPROACH

TIME	BRITISH			FRENCH		
	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE COEF (DB)	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE CORR (DB)
0.5	-42.8	.00	-27.2	-37.6	2.61	-0.4
1.0	-41.2	.00	-20.4	-36.3	2.55	-0.5
1.5	-35.2	.00	-13.5	-31.0	3.32	0.4
2.0	-30.9	.00	-16.5	-27.6	3.05	0.1
2.5	-28.7	.00	-23.2	-26.2	3.21	0.3
3.0	-28.1	.00	-24.3	-25.6	2.89	0.0
3.5	-25.4	.00	-19.0	-23.3	3.04	0.1
4.0	-22.5	.00	-18.9	-20.7	2.96	0.0
4.5	-20.6	.08	-11.0	-18.4	3.23	0.3
5.0	-14.3	.00	-12.8	-11.8	3.83	1.0
5.5	-9.9	.00	-20.1	-8.4	2.98	0.0
6.0	-9.5	.00	-23.3	-8.6	3.06	0.1
6.5	-10.3	.00	-23.6	-9.3	2.94	0.0
7.0	-10.6	.00	-24.0	-9.6	3.02	0.0
7.5	-10.2	.00	-25.7	-9.4	3.13	0.2
8.0	-9.8	.00	-23.5	-9.3	2.93	0.0
8.5	-9.6	.00	-22.4	-9.0	3.22	0.3
9.0	-7.8	.00	-23.6	-7.3	2.90	0.0
9.5	-9.0	.00	-19.4	-8.3	2.95	0.0
10.0	-8.6	.00	-26.4	-7.7	3.13	0.1
10.5	-8.5	.00	-26.4	-7.6	2.94	0.0
11.0	-9.3	.00	-21.0	-7.6	3.07	0.1
11.5	-8.6	.00	-23.3	-7.3	2.94	0.0
12.0	-6.0	.00	-18.8	-5.5	3.12	0.1
12.5	-2.9	.00	-27.1	-2.9	2.87	0.0
13.0	-4.9	.00	-22.7	-3.9	3.12	0.1
13.5	-5.8	.00	-23.5	-5.0	2.94	0.0
14.0	-4.6	.00	-17.5	-5.1	3.02	0.0
14.5	-3.2	.00	-16.5	-3.2	2.90	0.0
15.0	-2.5	.00	-18.7	-3.2	3.00	0.0
15.5	-3.5	.00	-12.5	-4.7	2.99	0.0
16.0	-3.5	.00	-18.2	-4.5	2.80	-0.2
16.5	-2.1	.00	-20.0	-3.4	2.85	-0.2
17.0	-3.3	.00	-18.9	-4.0	2.93	0.0
17.5	-1.8	.00	-24.0	-3.1	2.84	-0.2
18.0	-2.5	.00	-23.9	-3.5	2.96	0.0
18.5	-3.1	.00	-24.8	-4.2	2.83	-0.2
19.0	-2.1	.00	-21.3	-3.3	2.99	0.0
19.5	-2.5	.00	-27.6	-3.3	3.00	0.0
20.0	-2.8	.00	-22.4	-3.4	2.89	0.0
20.5	-2.4	.00	-25.7	-2.9	2.87	0.0
21.0	-2.7	.00	-25.3	-2.6	3.00	0.0
21.5	-2.1	.00	-23.5	-1.6	2.93	0.0
22.0	-1.0	.00	-23.6	-0.6	2.85	-0.2
22.5	0.0	.00	-21.5	0.0	2.86	-0.2
23.0	-1.0	.00	-23.5	-0.7	2.84	-0.2
23.5	-1.6	.00	-25.7	-0.6	2.87	0.0
24.0	-1.0	.00	-22.7	-0.6	2.83	-0.2
24.5	-1.2	.00	-24.9	-0.4	2.96	0.0
25.0	-1.1	.00	-24.4	-0.4	2.82	-0.2

## MAN-ACOUSTICS #10: BOEING 747 APPROACH

TIME	BRITISH			FRENCH		
	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE COEF (DB)	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE CORR (DB)
25.5	-2.2	.00	-24.4	-0.9	2.97	0.0
26.0	-2.6	.00	-22.7	-1.7	2.91	0.0
26.5	-2.5	.00	-29.4	-2.1	2.98	0.0
27.0	-1.2	.00	-15.6	-1.1	2.80	-0.2
27.5	-3.1	.00	-16.4	-2.5	2.96	0.0
28.0	-3.9	.00	-26.3	-2.9	2.83	-0.2
28.5	-5.2	.00	-27.1	-4.2	3.20	0.2
29.0	-5.4	.00	-16.8	-4.5	2.98	0.0
29.5	-5.8	.00	-20.3	-4.4	2.88	0.0
30.0	-6.6	.00	-17.3	-4.9	2.98	0.0
30.5	-7.4	.00	-24.9	-5.4	2.96	0.0
31.0	-7.6	.00	-25.9	-5.7	3.15	0.2
31.5	-9.0	.00	-23.2	-6.0	3.01	0.0
32.0	-10.6	.00	-22.2	-6.9	2.84	-0.2
32.5	-10.2	.00	-19.0	-5.9	3.10	0.1
33.0	-9.5	.00	-25.5	-5.7	3.00	0.0
33.5	-9.0	.00	-21.9	-5.7	2.79	-0.2
34.0	-8.6	.00	-19.4	-6.7	3.03	0.0
34.5	-9.2	.00	-22.4	-6.4	2.80	-0.2
35.0	-10.4	.00	-22.4	-6.9	3.27	0.3
35.5	-10.9	.00	-23.1	-7.3	2.93	0.0
36.0	-11.0	.00	-25.4	-7.8	2.95	0.0
36.5	-12.1	.00	-23.4	-8.3	2.90	0.0
37.0	-13.1	.00	-23.7	-7.9	2.99	0.0
37.5	-13.1	.00	-24.7	-8.8	3.04	0.1
38.0	-13.2	.00	-25.0	-7.8	3.02	0.0
38.5	-13.7	.00	-24.6	-8.8	2.87	0.0
39.0	-12.9	.00	-23.0	-8.7	2.78	-0.2
39.5	-12.7	.00	-20.1	-9.0	3.06	0.1
40.0	-14.1	.00	-24.3	-8.4	2.96	0.0
40.5	-14.2	.00	-23.9	-9.0	2.81	-0.2
41.0	-13.9	.00	-21.9	-8.5	2.77	-0.3
41.5	-14.0	.00	-22.1	-8.5	2.70	-0.3
42.0	-14.6	.00	-24.6	-8.4	2.91	0.0
42.5	-13.8	.00	-23.0	-8.1	3.01	0.0
43.0	-13.3	.00	-26.9	-9.0	3.01	0.0
43.5	-13.5	.00	-20.9	-9.8	3.05	0.1
44.0	-15.4	.00	-18.3	-11.7	3.20	0.2
44.5	-18.2	.00	-18.1	-14.5	2.73	-0.3
45.0	-21.6	.00	-17.3	-16.5	2.92	0.0
45.5	-26.0	.00	-19.8	-21.3	3.16	0.2
46.0	-26.5	.00	-21.7	-20.8	3.02	0.0

## MAN-ACOUSTICS #11: DC-B APPROACH

TIME	BRITISH			FRENCH		
	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE COEF (DB)	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE CORR (DB)
0.5	-31.1	.00	-21.8	-22.5	3.04	0.1
1.0	-27.7	.00	-13.1	-19.4	3.24	0.3
1.5	-21.5	.00	-15.2	-14.3	2.94	0.0
2.0	-18.5	.00	-21.9	-11.4	2.92	0.0
2.5	-13.5	.00	-14.2	-6.2	3.24	0.3
3.0	-12.0	.00	-13.4	-5.0	2.94	0.0
3.5	-10.6	.00	-18.7	-4.0	2.97	0.0
4.0	-10.0	.00	-15.4	-3.8	3.13	0.2
4.5	-11.4	.00	-24.0	-5.4	2.93	0.0
5.0	-9.9	.00	-23.0	-4.8	2.81	-0.2
5.5	-8.5	.00	-18.3	-5.0	3.10	0.1
6.0	-10.5	.00	-19.0	-4.9	3.02	0.0
6.5	-9.7	.00	-17.0	-4.7	3.09	0.1
7.0	-7.8	.00	-19.8	-4.3	3.02	0.0
7.5	-7.9	.00	-20.1	-4.4	2.80	-0.2
8.0	-6.8	.00	-19.5	-3.6	3.14	0.2
8.5	-4.6	.00	-21.3	-3.3	2.98	0.0
9.0	-4.1	.00	-20.4	-4.0	3.32	0.4
9.5	-4.8	.00	-16.6	-3.5	3.16	0.2
10.0	-5.1	.00	-13.6	-1.9	3.09	0.1
10.5	-3.3	.00	-22.0	-2.4	2.89	0.0
11.0	-3.8	.00	-23.4	-2.4	3.06	0.1
11.5	-4.3	.00	-20.1	-3.2	3.14	0.2
12.0	-3.4	.00	-19.3	-2.2	2.98	0.0
12.5	-3.2	.00	-20.9	-2.0	3.05	0.1
13.0	-2.2	.00	-16.1	-2.1	3.29	0.3
13.5	-2.3	.00	-14.7	-2.2	3.01	0.0
14.0	-1.2	.00	-16.4	-1.7	3.02	0.0
14.5	-0.7	.00	-19.9	-1.9	2.96	0.0
15.0	-1.0	.00	-19.8	-1.4	3.06	0.1
15.5	0.0	.00	-22.0	-1.2	2.82	-0.2
16.0	-0.3	.00	-17.8	0.0	2.98	0.0
16.5	0.0	.00	-13.3	-0.9	2.87	0.0
17.0	-1.4	.00	-12.3	-0.7	3.00	0.0
17.5	-3.1	.00	-21.6	-1.4	2.94	0.0
18.0	-6.2	.00	-19.4	-2.0	3.02	0.0
18.5	-5.1	.00	-20.3	-1.3	3.05	0.1
19.0	-5.7	.00	-22.4	-0.8	3.08	0.1
19.5	-7.0	.00	-21.3	-1.6	2.88	0.0
20.0	-6.9	.00	-14.7	-1.7	2.97	0.0
20.5	-7.3	.00	-16.8	-2.7	3.03	0.0
21.0	-10.5	.00	-20.4	-1.4	2.79	-0.2
21.5	-11.4	.00	-21.9	-0.2	2.77	-0.3
22.0	-10.6	.00	-18.1	-1.0	3.44	0.5
22.5	-11.2	.00	-18.3	-1.3	2.86	0.0
23.0	-12.5	.00	-22.3	-0.8	2.70	-0.3
23.5	-13.4	.00	-19.6	-1.1	3.18	0.2
24.0	-13.7	.00	-20.2	-1.4	3.01	0.0
24.5	-13.5	.00	-22.9	-0.9	2.82	-0.2
25.0	-14.6	.00	-25.0	0.0	2.62	-0.4

## MAN-ACOUSTICS #11: DC-8 APPROACH

TIME	BRITISH			FRENCH		
	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE COEF (DB)	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE CORR (DB)
25.5	-14.3	.00	-21.9	-0.6	2.99	0.0
26.0	-13.8	.00	-20.8	-1.6	2.73	-0.3
26.5	-12.8	.00	-20.8	-2.2	2.64	-0.4
27.0	-14.1	.00	-21.1	-1.7	2.98	0.0
27.5	-14.7	.00	-23.8	-1.5	3.00	0.0
28.0	-15.1	.00	-24.7	-1.7	3.01	0.0
28.5	-15.2	.00	-25.0	-1.7	2.95	0.0
29.0	-14.4	.00	-22.0	-2.6	3.09	0.1



## MAN-ACOUSTICS #12: BRITTEN-NORMAN ISLANDER - TAKEOFF SMALL RECIP

TIME	BRITISH			FRENCH		
	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE COEF (DB)	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE CORR (DB)
0.5	-14.4	.00	-19.2	-7.6	2.50	-0.6
1.0	-12.1	.00	-23.7	-6.2	2.26	-0.8
1.5	-10.5	.00	-23.1	-8.4	2.52	-0.5
2.0	-11.0	.00	-22.9	-10.7	2.42	-0.7
2.5	-10.7	.00	-26.5	-9.9	2.65	-0.4
3.0	-10.2	.00	-18.3	-8.4	2.38	-0.7
3.5	-8.6	.00	-17.5	-6.7	2.14	-1.0
4.0	-7.1	.00	-15.6	-3.7	2.52	-0.5
4.5	-6.5	.00	-18.3	-5.3	2.83	-0.2
5.0	-5.1	.00	-23.2	-6.1	3.09	0.1
5.5	-4.9	.00	-28.7	-6.2	2.82	-0.2
6.0	-3.6	.00	-23.7	-5.2	2.89	0.0
6.5	-1.9	.00	-21.8	-4.5	3.68	0.8
7.0	-0.8	.00	-33.5	-2.8	2.95	0.0
7.5	-0.6	.00	-30.8	-2.0	3.18	0.2
8.0	0.0	.00	-27.4	-1.0	2.86	-0.2
8.5	-0.5	.00	-25.4	-0.4	2.51	-0.5
9.0	-0.9	.00	-17.4	0.0	2.46	-0.6
9.5	-3.7	.00	-23.7	-1.4	2.29	-0.8
10.0	-4.1	.00	-23.8	-2.3	2.12	-1.0
10.5	-5.1	.00	-25.5	-3.2	2.30	-0.8
11.0	-4.8	.00	-26.7	-3.3	2.58	-0.5
11.5	-5.1	.00	-22.7	-3.6	2.53	-0.5
12.0	-5.6	.00	-17.9	-6.9	2.94	0.0
12.5	-6.2	.00	-16.4	-7.5	3.08	0.1
13.0	-5.4	.00	-13.6	-9.4	3.33	0.4
13.5	-6.2	.00	-20.3	-9.2	2.88	0.0
14.0	-6.6	.00	-22.1	-7.8	2.66	-0.4
14.5	-6.4	.00	-23.9	-7.1	2.61	-0.4
15.0	-6.9	.00	-21.6	-7.0	2.54	-0.5
15.5	-6.5	.00	-23.8	-7.8	2.85	-0.2
16.0	-7.0	.00	-22.9	-7.3	3.31	0.4
16.5	-7.2	.00	-23.1	-8.7	3.27	0.3
17.0	-7.6	.00	-17.2	-8.5	3.32	0.4
17.5	-8.1	.00	-17.3	-9.4	2.92	0.0
18.0	-8.8	.00	-18.5	-8.6	2.70	-0.3
18.5	-9.5	.00	-23.7	-6.9	2.58	-0.5
19.0	-9.4	.00	-20.9	-6.9	2.71	-0.3
19.5	-10.8	.00	-19.1	-8.5	2.47	-0.6
20.0	-13.4	.00	-17.9	-8.8	2.43	-0.6
20.5	-11.8	.00	-26.2	-8.9	2.42	-0.7
21.0	-12.5	.00	-26.5	-9.3	2.53	-0.5

## MAN-ACOUSTICS #13: CONVAIR 640 - TAKEOFF MEDIUM TURBOPROP

TIME	BRITISH			FRENCH		
	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE COEF (DB)	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE CORR (DB)
0.5	-22.5	.00	-22.1	-21.5	2.45	-0.6
1.0	-20.5	.00	-16.3	-20.3	2.52	-0.5
1.5	-12.4	.00	-14.4	-14.8	3.05	0.1
2.0	-9.3	.00	-18.7	-7.7	2.32	-0.8
2.5	-7.3	.00	-16.1	-8.3	2.26	-0.8
3.0	-7.6	.00	-12.9	-9.5	2.37	-0.7
3.5	-6.0	.00	-18.8	-8.9	2.86	-0.2
4.0	-7.0	.00	-21.5	-7.3	2.44	-0.6
4.5	-6.0	.00	-22.0	-7.4	2.70	-0.3
5.0	-3.7	.00	-22.9	-7.1	2.85	-0.2
5.5	-5.0	.00	-22.4	-8.7	3.12	0.1
6.0	-4.5	.00	-23.6	-6.1	2.74	-0.3
6.5	-3.6	.00	-24.0	-5.8	2.86	-0.2
7.0	-3.7	.00	-29.7	-5.4	2.59	-0.5
7.5	-2.7	.00	-22.5	-4.5	2.75	-0.3
8.0	-3.2	.00	-22.2	-5.0	2.59	-0.5
8.5	-1.9	.00	-27.5	-3.2	2.42	-0.7
9.0	-1.7	.00	-22.9	-2.5	2.46	-0.6
9.5	-0.7	.00	-27.0	-1.7	2.20	-0.9
10.0	0.0	.00	-27.3	0.0	2.11	-1.0
10.5	-1.3	.00	-24.9	-0.3	2.20	-0.9
11.0	-2.0	.00	-29.3	-1.7	2.75	-0.3
11.5	-1.2	.00	-29.4	-1.1	2.88	0.0
12.0	-2.6	.00	-18.7	-0.7	2.79	-0.2
12.5	-3.6	.00	-21.3	-1.7	2.24	-0.9
13.0	-4.4	.00	-25.3	-0.8	2.24	-0.9
13.5	-3.9	.00	-23.3	-2.3	2.43	-0.6
14.0	-4.5	.00	-26.6	-3.4	2.54	-0.5
14.5	-4.0	.00	-22.8	-5.6	2.93	0.0
15.0	-4.6	.00	-21.8	-7.4	3.03	0.0
15.5	-6.0	.00	-23.7	-6.3	2.35	-0.7
16.0	-6.7	.00	-24.0	-5.9	2.59	-0.5
16.5	-6.7	.00	-15.4	-6.3	2.57	-0.5
17.0	-7.8	.00	-23.3	-8.0	2.89	0.0
17.5	-6.3	.00	-19.1	-9.7	2.82	-0.2
18.0	-7.5	.00	-21.3	-9.0	2.84	-0.2
18.5	-8.1	.00	-22.5	-8.1	2.56	-0.5
19.0	-8.1	.00	-21.4	-8.9	2.45	-0.6
19.5	-8.9	.00	-19.5	-8.5	2.61	-0.4
20.0	-9.2	.00	-20.4	-8.9	2.90	0.0
20.5	-10.2	.00	-22.4	-9.2	2.82	-0.2
21.0	-10.4	.00	-20.5	-8.3	2.40	-0.7
21.5	-10.3	.00	-22.4	-9.3	2.48	-0.6
22.0	-10.8	.00	-18.7	-8.3	2.22	-0.9
22.5	-11.5	.00	-19.3	-8.4	2.27	-0.8
23.0	-11.8	.00	-20.7	-9.6	2.40	-0.7
23.5	-11.4	.00	-23.3	-11.4	2.97	0.0

## MAN-ACOUSTICS #14: CHINOOK CH 47-A - LEVEL FLYOVER AT 500 FT

TIME	BRITISH			FRENCH		
	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE COEF (DB)	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE CORR (DB)
0.5	-20.0	12.93	11.1	-23.1	13.82	12.4
1.0	-16.2	16.36	12.1	-20.8	20.53	20.0
1.5	-14.6	29.35	14.7	-18.8	27.32	27.8
2.0	-8.9	16.75	12.2	-13.8	16.56	15.5
2.5	-7.5	14.80	11.7	-12.2	9.20	7.1
3.0	-7.2	11.97	10.8	-11.4	6.65	4.2
3.5	-5.6	15.08	11.8	-10.6	8.45	6.2
4.0	-5.6	7.11	8.5	-10.3	6.94	4.5
4.5	-7.8	5.27	7.2	-10.2	4.05	1.2
5.0	-9.8	1.74	2.4	-9.2	2.85	-0.2
5.5	-12.3	1.91	2.8	-8.5	2.53	-0.5
6.0	-11.3	2.09	3.2	-7.8	2.35	-0.7
6.5	-10.0	3.00	4.8	-7.4	2.60	-0.5
7.0	-11.5	1.24	0.9	-7.5	2.83	-0.2
7.5	-11.9	1.30	1.2	-7.1	3.16	0.2
8.0	-13.0	.92	-0.3	-7.4	3.46	0.5
8.5	-13.7	.63	-2.0	-7.0	3.24	0.3
9.0	-13.7	.49	-3.1	-6.6	2.96	0.0
9.5	-13.9	.64	-1.9	-6.6	3.08	0.1
10.0	-11.4	1.15	0.6	-6.2	3.29	0.3
10.5	-9.5	1.54	1.9	-6.3	3.68	0.8
11.0	-9.4	.80	-0.9	-6.4	3.73	0.8
11.5	-9.5	1.05	0.2	-6.1	3.74	0.9
12.0	-10.0	1.28	1.1	-6.1	4.18	1.3
12.5	-7.8	2.87	4.6	-6.3	4.04	1.2
13.0	-6.0	6.64	8.2	-5.3	5.44	2.8
13.5	-6.4	5.20	7.2	-5.8	4.56	1.8
14.0	-7.9	.79	-1.0	-5.5	3.39	0.5
14.5	-8.4	1.07	0.3	-5.2	3.34	0.4
15.0	-8.2	.72	-1.4	-5.5	3.33	0.4
15.5	-7.2	1.05	0.2	-5.7	3.72	0.8
16.0	-7.5	1.27	1.1	-5.9	2.99	0.0
16.5	-8.1	.47	-3.2	-6.0	2.72	-0.3
17.0	-6.5	1.29	1.1	-5.5	4.45	1.7
17.5	-3.4	3.84	5.9	-4.8	6.95	4.5
18.0	-3.3	7.61	8.8	-4.1	8.73	6.6
18.5	-2.4	6.27	8.0	-4.0	10.31	8.4
19.0	-2.9	1.22	0.9	-3.7	7.19	4.8
19.5	-2.3	1.99	3.0	-3.1	9.55	7.5
20.0	-1.9	6.72	8.3	-1.8	11.69	9.9
20.5	-0.6	4.65	6.7	-1.9	12.03	10.3
21.0	-1.0	4.32	6.4	-0.9	8.76	6.6
21.5	-0.7	2.23	3.5	-0.7	8.07	5.8
22.0	0.0	2.24	3.5	-0.5	7.91	5.6
22.5	-0.7	1.38	1.4	-0.2	7.48	5.1
23.0	-1.1	1.43	1.6	0.0	8.22	6.0
23.5	-1.9	.79	-1.0	0.0	7.22	4.8
24.0	-3.0	.60	-2.2	-0.9	6.50	4.0
24.5	-3.8	.20	-7.0	-0.9	5.24	2.6
25.0	-4.4	.07	-11.0	-1.7	5.21	2.5

## MAN-ACOUSTICS #14: CHINOOK CH 47-A - LEVEL FLYOVER AT 500 FT

TIME	BRITISH			FRENCH		
	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE COEF (DB)	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE CORR (DB)
25.5	-3.9	.00	-15.9	-2.3	4.88	2.2
26.0	-4.4	.00	-17.2	-4.5	4.66	1.9
26.5	-4.6	.00	-24.1	-7.3	3.31	0.4
27.0	-5.0	.00	-20.7	-7.2	3.33	0.4
27.5	-5.9	.00	-17.8	-7.3	3.58	0.7
28.0	-5.7	.00	-12.7	-7.8	3.88	1.0
28.5	-5.8	.00	-13.5	-8.4	3.72	0.8
29.0	-6.4	.00	-19.1	-8.8	3.48	0.6
29.5	-7.5	.07	-11.5	-8.7	3.15	0.2
30.0	-8.8	.00	-12.9	-8.6	3.07	0.1
30.5	-8.2	.00	-15.2	-8.9	3.04	0.1
31.0	-8.6	.00	-19.1	-9.4	2.75	-0.3
31.5	-8.9	.00	-16.3	-8.6	2.99	0.0
32.0	-9.0	.00	-17.1	-8.7	3.07	0.1
32.5	-9.6	.00	-19.5	-9.0	3.08	0.1
33.0	-10.3	.00	-16.6	-9.2	3.31	0.4
33.5	-9.8	.00	-21.5	-8.7	2.78	-0.2
34.0	-10.2	.00	-21.1	-8.7	2.99	0.0
34.5	-11.0	.00	-20.2	-9.0	2.70	-0.3
35.0	-10.7	.00	-14.5	-9.0	2.60	-0.4
35.5	-10.2	.00	-18.3	-9.0	2.57	-0.5
36.0	-10.9	.00	-18.3	-9.1	2.42	-0.7
36.5	-11.8	.00	-24.0	-9.9	2.58	-0.5
37.0	-11.2	.00	-21.3	-10.7	2.53	-0.5
37.5	-12.6	.00	-23.6	-11.5	2.45	-0.6
38.0	-12.4	.00	-22.3	-10.0	2.31	-0.8
38.5	-11.5	.00	-20.2	-10.0	2.66	-0.4
39.0	-11.5	.00	-19.7	-10.4	2.85	-0.2
39.5	-11.4	.00	-20.4	-10.1	2.74	-0.3
40.0	-10.2	.00	-21.0	-11.4	2.72	-0.3

## MAN-ACOUSTICS #15: CHINOOK CH 47-A - ROUTINE APPROACH

TIME	BRITISH			FRENCH		
	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE COEF (DB)	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE CORR (DB)
0.5	-13.7	9.78	9.9	-11.8	3.46	0.5
1.0	-13.1	8.89	9.5	-10.6	3.42	0.5
1.5	-12.6	6.57	8.2	-10.9	4.16	1.3
2.0	-12.9	4.14	6.2	-10.6	3.78	0.9
2.5	-15.4	3.82	5.8	-10.8	3.90	1.0
3.0	-15.6	1.98	3.0	-10.2	3.77	0.9
3.5	-16.0	2.05	3.1	-10.5	3.59	0.7
4.0	-15.8	1.41	1.5	-10.4	3.61	0.7
4.5	-16.8	.71	-1.5	-9.7	3.25	0.3
5.0	-16.7	1.16	0.6	-9.8	4.04	1.2
5.5	-16.0	2.02	3.1	-9.6	3.48	0.6
6.0	-16.8	1.73	2.4	-9.4	3.27	0.3
6.5	-16.0	2.78	4.5	-9.2	3.02	0.0
7.0	-15.7	1.26	1.0	-9.1	2.68	-0.4
7.5	-17.3	.38	-4.2	-9.4	2.51	-0.6
8.0	-15.7	2.29	3.6	-9.6	3.02	0.0
8.5	-12.4	2.15	3.3	-9.4	2.88	0.0
9.0	-11.9	6.70	8.3	-9.6	3.28	0.3
9.5	-12.7	3.94	6.0	-9.4	3.60	0.7
10.0	-13.2	1.82	2.6	-9.0	3.09	0.1
10.5	-13.4	1.49	1.7	-9.3	2.59	-0.5
11.0	-15.0	1.73	2.4	-9.4	2.63	-0.4
11.5	-16.6	.11	-9.5	-9.5	2.42	-0.7
12.0	-16.2	.35	-4.5	-9.7	2.54	-0.5
12.5	-14.5	1.10	0.4	-10.1	2.67	-0.4
13.0	-12.7	1.48	1.7	-9.8	2.99	0.0
13.5	-12.1	2.93	4.7	-9.9	3.24	0.3
14.0	-12.2	4.82	6.8	-10.1	4.04	1.2
14.5	-12.6	1.70	2.3	-10.2	3.73	0.8
15.0	-14.5	.14	-8.3	-10.0	3.35	0.4
15.5	-12.4	2.82	4.5	-9.4	5.35	2.7
16.0	-11.9	2.58	4.1	-9.1	5.27	2.6
16.5	-12.8	1.85	2.7	-8.6	5.13	2.4
17.0	-13.2	3.75	5.7	-9.1	4.33	1.5
17.5	-13.3	4.57	6.6	-9.1	5.08	2.4
18.0	-11.9	9.13	9.6	-9.3	6.15	3.6
18.5	-11.8	4.27	6.3	-9.3	7.31	4.9
19.0	-11.4	7.16	8.6	-9.2	7.19	4.8
19.5	-12.0	4.37	6.4	-9.0	4.91	2.2
20.0	-11.8	2.13	3.3	-8.6	5.01	2.3
20.5	-11.0	1.06	0.3	-8.8	6.99	4.6
21.0	-9.8	5.03	7.0	-8.6	8.09	5.8
21.5	-10.9	2.64	4.2	-9.1	7.04	4.6
22.0	-9.7	4.16	6.2	-9.2	6.88	4.4
22.5	-11.0	2.59	4.1	-9.2	4.97	2.3
23.0	-10.7	2.42	3.9	-9.2	4.20	1.4
23.5	-11.0	.88	-0.5	-9.3	3.64	0.7
24.0	-10.5	3.98	6.0	-9.3	3.65	0.7
24.5	-9.0	5.06	7.0	-8.8	4.01	1.2
25.0	-8.6	2.57	4.1	-8.4	4.24	1.4



## MAN-ACOUSTICS #15: CHINOOK CH 47-A - ROUTINE APPROACH

TIME	BRITISH			FRENCH		
	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE COEF (DB)	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE CORR (DB)
25.5	-8.4	5.45	7.4	-8.3	4.58	1.8
26.0	-8.3	3.74	5.7	-8.2	3.81	0.9
26.5	-6.9	3.26	5.1	-7.9	3.80	0.9
27.0	-6.4	4.19	6.2	-7.2	4.52	1.7
27.5	-6.3	4.52	6.6	-7.2	4.60	1.8
28.0	-6.1	6.28	8.0	-7.4	4.38	1.6
28.5	-6.0	2.42	3.8	-7.6	3.24	0.3
29.0	-5.8	1.66	2.2	-7.1	3.66	0.8
29.5	-5.6	1.67	2.2	-6.9	4.08	1.2
30.0	-5.2	1.92	2.8	-6.6	4.35	1.6
30.5	-5.4	2.08	3.2	-6.8	4.62	1.9
31.0	-5.7	1.79	2.5	-6.4	4.82	2.1
31.5	-5.7	1.91	2.8	-6.5	5.34	2.7
32.0	-5.6	1.05	0.2	-6.2	4.55	1.8
32.5	-5.4	.64	-1.9	-5.8	4.58	1.8
33.0	-5.2	.63	-2.0	-5.8	4.79	2.1
33.5	-5.2	.74	-1.3	-5.6	4.89	2.2
34.0	-4.9	.84	-0.7	-5.4	5.19	2.5
34.5	-4.4	.79	-1.0	-4.9	5.21	2.5
35.0	-4.1	.59	-2.2	-4.4	5.34	2.7
35.5	-4.1	.47	-3.2	-4.1	4.69	1.9
36.0	-3.6	.43	-3.7	-3.5	4.44	1.6
36.5	-3.5	.54	-2.6	-3.3	4.59	1.8
37.0	-3.1	.44	-3.5	-3.3	4.60	1.8
37.5	-2.5	.38	-4.2	-2.8	4.46	1.7
38.0	-2.2	.33	-4.7	-2.5	4.48	1.7
38.5	-1.5	.19	-7.1	-2.5	4.17	1.3
39.0	-1.0	.13	-8.7	-1.7	3.76	0.9
39.5	-0.8	.09	-10.2	-1.2	3.89	1.0
40.0	-0.8	.06	-11.7	-0.5	4.22	1.4
40.5	-1.0	.00	-12.5	-0.3	4.03	1.2
41.0	-1.0	.07	-11.2	-0.5	4.09	1.3
41.5	-0.5	.00	-13.5	0.0	4.28	1.5
42.0	-0.5	.10	-9.9	-0.4	4.91	2.2
42.5	0.0	.15	-7.8	-0.4	4.93	2.2
43.0	0.0	.23	-6.3	0.0	4.45	1.7
43.5	-0.5	.06	-12.0	-0.3	4.03	1.2
44.0	-0.9	.00	-17.3	-0.3	4.05	1.2
44.5	-1.1	.00	-17.6	-0.9	3.70	0.8
45.0	-1.2	.00	-16.5	-1.4	4.65	1.9
45.5	-1.6	.00	-15.7	-2.4	4.33	1.5
46.0	-2.4	.00	-12.4	-3.6	4.68	1.9
46.5	-3.1	.07	-11.3	-4.0	4.51	1.7
47.0	-3.8	.00	-14.8	-4.2	4.18	1.4
47.5	-4.2	.27	-5.5	-4.7	5.46	2.8
48.0	-3.9	.42	-3.7	-4.4	6.00	3.4
48.5	-4.5	1.16	0.7	-4.4	6.31	3.8
49.0	-4.4	1.52	1.8	-4.6	6.02	3.5
49.5	-4.7	1.19	0.8	-6.0	4.98	2.3
50.0	-5.5	1.13	0.5	-7.0	5.15	2.5



## MAN-ACOUSTICS #15: CHINOOK CH 47-A - ROUTINE APPROACH

TIME	BRITISH			FRENCH		
	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE COEF (DB)	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE CORR (DB)
50.5	-6.3	.49	-3.1	-7.8	4.16	1.3
51.0	-7.4	.34	-4.6	-9.1	3.98	1.1
51.5	-8.1	.18	-7.4	-8.7	2.85	-0.2
52.0	-9.0	.61	-2.1	-8.8	2.51	-0.5
52.5	-8.1	.78	-1.1	-9.4	2.94	0.0
53.0	-7.2	2.11	3.2	-10.5	4.70	1.9
53.5	-9.1	.41	-3.9	-11.1	3.26	0.3
54.0	-10.2	.55	-2.6	-11.1	3.07	0.1
54.5	-11.1	.44	-3.6	-9.9	3.26	0.3
55.0	-12.3	.29	-5.3	-10.5	2.64	-0.4
55.5	-12.4	.49	-3.1	-12.0	3.00	0.0
56.0	-11.1	.85	-0.7	-12.2	2.84	-0.2
56.5	-12.3	.45	-3.4	-12.1	2.71	-0.3
57.0	-12.8	.21	-6.7	-12.8	2.91	0.0
57.5	-12.2	.54	-2.6	-12.7	2.78	-0.2
58.0	-11.4	.76	-1.2	-13.2	4.12	1.3
58.5	-10.1	1.85	2.7	-12.7	3.52	0.6
59.0	-10.5	.23	-6.4	-12.9	3.40	0.5

## MAN-ACOUSTICS #16: CHINOOK CH 47-A - ROUTINE TAKEOFF

TIME	BRITISH			FRENCH		
	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE COEF (DB)	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE CORR (DB)
0.5	-16.5	.08	-10.6	-11.9	2.78	-0.3
1.0	-16.1	.00	-17.0	-12.3	2.63	-0.4
1.5	-17.0	.00	-13.4	-12.4	2.60	-0.5
2.0	-17.4	.09	-10.4	-12.0	2.72	-0.3
2.5	-16.0	.56	-2.5	-11.3	2.79	-0.2
3.0	-16.1	.87	-0.6	-10.4	2.58	-0.5
3.5	-16.3	.14	-8.5	-11.2	2.39	-0.7
4.0	-16.1	.24	-6.0	-11.5	2.73	-0.3
4.5	-13.0	23.42	13.7	-11.2	4.80	2.1
5.0	-15.7	2.25	3.5	-10.7	2.91	0.0
5.5	-18.8	.00	-18.8	-10.4	2.34	-0.7
6.0	-18.3	.00	-22.1	-10.0	2.63	-0.4
6.5	-17.3	.00	-20.5	-9.5	2.60	-0.4
7.0	-16.7	.00	-21.8	-9.1	2.51	-0.5
7.5	-15.8	.00	-16.0	-9.5	2.40	-0.7
8.0	-15.0	.00	-15.5	-10.9	2.55	-0.5
8.5	-14.3	.00	-16.2	-10.5	2.63	-0.4
9.0	-13.5	.00	-23.4	-10.1	2.55	-0.5
9.5	-12.8	.00	-22.5	-10.8	2.81	-0.2
10.0	-12.5	.00	-20.7	-10.4	2.67	-0.4
10.5	-12.6	.00	-19.8	-9.7	2.67	-0.4
11.0	-12.8	.00	-15.2	-7.8	2.54	-0.5
11.5	-13.4	.00	-18.9	-7.7	2.50	-0.6
12.0	-12.2	.00	-20.7	-8.2	2.65	-0.4
12.5	-13.1	.00	-17.5	-7.1	2.54	-0.5
13.0	-14.1	.00	-14.4	-6.1	2.94	0.0
13.5	-13.7	.08	-10.8	-5.7	2.98	0.0
14.0	-12.4	.00	-15.5	-6.1	3.15	0.2
14.5	-11.2	.00	-22.6	-6.9	3.27	0.3
15.0	-9.9	.00	-13.5	-6.9	3.50	0.6
15.5	-10.2	.00	-19.6	-6.2	3.69	0.8
16.0	-9.5	.00	-19.9	-5.8	3.80	0.9
16.5	-9.6	.00	-19.9	-5.6	3.89	1.0
17.0	-8.5	.00	-23.8	-3.7	3.38	0.4
17.5	-7.9	.00	-17.2	-3.1	2.74	-0.3
18.0	-6.7	.00	-22.0	-3.7	2.55	-0.5
18.5	-5.9	.00	-19.5	-1.7	3.80	0.9
19.0	-4.2	.00	-14.8	0.0	3.94	1.1
19.5	-1.3	.07	-11.5	-0.2	4.60	1.8
20.0	0.0	.00	-19.9	-3.6	4.14	1.3
20.5	-1.7	.00	-16.3	-5.2	4.77	2.0
21.0	-3.8	.00	-19.3	-7.6	3.06	0.1
21.5	-4.1	.06	-12.0	-8.3	3.36	0.4
22.0	-5.4	.00	-19.8	-9.0	3.04	0.0
22.5	-7.0	.00	-16.8	-9.1	2.90	0.0
23.0	-8.0	.00	-21.9	-10.1	2.92	0.0
23.5	-8.1	.00	-23.7	-9.5	2.70	-0.3
24.0	-9.0	.00	-21.2	-10.2	2.79	-0.2
24.5	-8.8	.00	-22.8	-10.5	2.96	0.0
25.0	-9.1	.00	-15.6	-11.8	3.02	0.0

MAN-ACOUSTICS #15: CHINOOK CH 47-A - ROUTINE TAKEOFF

TIME	BRITISH			FRENCH		
	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE COEF (DB)	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE CORR (DB)
25.5	-9.6	.00	-14.0	-12.0	2.92	0.0
26.0	-10.3	.00	-18.6	-11.8	2.78	-0.3
26.5	-11.6	.00	-20.6	-12.1	2.74	-0.3
27.0	-12.9	.00	-19.3	-12.4	2.78	-0.2
27.5	-13.5	.00	-18.2	-12.9	3.02	0.0
28.0	-14.5	.00	-24.8	-12.9	2.71	-0.3
28.5	-15.2	.00	-24.9	-13.5	2.62	-0.4
29.0	-15.0	.00	-23.2	-13.5	2.65	-0.4
29.5	-14.8	.00	-21.1	-14.0	2.52	-0.5
30.0	-15.4	.00	-15.8	-13.5	2.43	-0.7

## MAN-ACOUSTICS #17: BELL UH-1H (HUEY) - LEVEL FLYOVER AT 500 FT

TIME	BRITISH			FRENCH		
	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE COEF (DB)	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE CORR (DB)
0.5	-10.0	3.21	5.1	-5.9	5.08	2.4
1.0	-8.9	3.32	5.2	-5.6	5.41	2.8
1.5	-7.7	2.21	3.5	-4.5	5.25	2.6
2.0	-7.6	3.11	4.9	-4.8	4.88	2.2
2.5	-7.0	3.51	5.5	-4.7	4.69	1.9
3.0	-6.2	2.22	3.5	-4.5	4.88	2.2
3.5	-6.1	1.55	1.9	-4.3	5.18	2.5
4.0	-5.5	1.06	0.3	-3.7	5.42	2.8
4.5	-5.5	.75	-1.2	-4.0	5.03	2.3
5.0	-5.8	.73	-1.4	-3.6	4.59	1.8
5.5	-5.7	1.29	1.1	-3.5	5.17	2.5
6.0	-5.8	2.14	3.3	-3.1	5.79	3.2
6.5	-4.0	2.77	4.4	-2.4	5.77	3.2
7.0	-3.7	2.26	3.5	-3.1	6.77	4.3
7.5	-4.1	5.02	7.0	-3.4	6.38	3.9
8.0	-5.6	5.79	7.6	-3.6	5.36	2.7
8.5	-6.6	4.18	6.2	-3.3	5.17	2.5
9.0	-6.7	2.34	3.7	-3.4	5.02	2.3
9.5	-6.8	3.18	5.0	-4.0	5.39	2.7
10.0	-5.2	6.40	8.1	-3.9	5.90	3.3
10.5	-5.3	10.04	10.0	-4.4	7.04	4.6
11.0	-5.5	12.67	11.0	-4.1	6.61	4.1
11.5	-5.0	5.88	7.7	-4.1	6.14	3.6
12.0	-5.3	7.70	8.9	-4.2	6.40	3.9
12.5	-5.2	4.91	6.9	-3.7	5.26	2.6
13.0	-5.9	4.19	6.2	-4.2	6.09	3.5
13.5	-5.5	2.88	4.6	-3.5	5.70	3.1
14.0	-5.0	2.53	4.0	-3.9	5.98	3.4
14.5	-5.5	3.40	5.3	-3.9	6.28	3.8
15.0	-4.4	4.22	6.3	-3.7	6.99	4.6
15.5	-4.9	5.93	7.7	-3.5	7.40	5.0
16.0	-4.6	2.86	4.6	-2.6	5.98	3.4
16.5	-3.4	5.76	7.6	-2.9	7.00	4.6
17.0	-3.8	7.47	8.7	-2.4	6.73	4.3
17.5	-2.9	6.03	7.8	-3.1	7.35	5.0
18.0	-3.7	6.81	8.3	-2.6	6.25	3.7
18.5	-3.2	7.78	8.9	-2.1	5.85	3.3
19.0	-4.1	8.72	9.4	-2.0	6.20	3.7
19.5	-3.5	6.80	8.3	-1.3	5.63	3.0
20.0	-3.5	3.84	5.8	-1.6	5.66	3.0
20.5	-3.3	7.70	8.9	-1.1	5.15	2.5
21.0	-3.5	5.07	7.1	-1.2	4.51	1.7
21.5	-4.4	2.91	4.6	-1.4	4.28	1.5
22.0	-4.8	2.83	4.5	-0.4	3.86	1.0
22.5	-4.7	2.83	4.5	-0.6	3.97	1.1
23.0	-4.6	2.38	3.8	-0.6	3.77	0.9
23.5	-4.7	2.90	4.6	-0.2	3.12	0.1
24.0	-5.0	3.44	5.4	-0.3	3.17	0.2
24.5	-5.4	5.49	7.4	0.0	3.23	0.3
25.0	-2.5	14.25	11.5	0.0	2.94	0.0

## MAN-ACOUSTICS #17: BELL UH-1H (HUEY) - LEVEL FLYOVER AT 500 FT

TIME	BRITISH			FRENCH		
	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE COEF (DB)	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE CORR (DB)
25.5	-3.3	9.08	9.6	-0.4	3.09	0.1
26.0	-2.8	13.90	11.4	-0.9	2.76	-0.3
26.5	-4.3	5.63	7.5	-1.2	2.80	-0.2
27.0	-4.7	1.92	2.8	-2.1	2.24	-0.9
27.5	-4.3	.61	-2.1	-3.0	2.18	-0.9
28.0	-2.4	.77	-1.1	-4.1	2.82	-0.2
28.5	-0.3	3.56	5.5	-5.9	3.27	0.3
29.0	0.0	2.06	3.2	-7.3	5.44	2.8
29.5	-1.7	.46	-3.4	-10.0	4.76	2.0
30.0	-1.3	1.52	1.8	-11.2	10.10	8.1
30.5	-2.3	.40	-3.9	-11.9	4.39	1.6
31.0	-2.9	.14	-8.4	-11.8	5.35	2.7
31.5	-3.8	.00	-13.9	-11.7	3.29	0.3
32.0	-2.4	.08	-10.7	-12.8	3.88	1.0
32.5	-4.2	.00	-12.9	-12.0	3.24	0.3
33.0	-3.8	.00	-13.8	-12.7	3.34	0.4
33.5	-3.2	.00	-14.6	-13.0	3.37	0.4
34.0	-4.5	.06	-11.9	-13.2	3.06	0.1
34.5	-4.7	.00	-15.8	-13.2	3.17	0.2
35.0	-5.5	.00	-19.7	-13.7	2.98	0.0
35.5	-6.3	.00	-16.0	-12.7	2.96	0.0
36.0	-5.3	.07	-11.0	-12.7	3.24	0.3
36.5	-6.8	.00	-12.4	-13.6	2.79	-0.2
37.0	-6.8	.10	-9.6	-14.0	3.18	0.2
37.5	-7.6	.06	-11.7	-14.4	3.04	0.1
38.0	-10.3	.07	-11.2	-13.0	2.84	-0.2
38.5	-10.5	.00	-13.2	-13.1	2.60	-0.5
39.0	-8.0	.33	-4.8	-14.6	2.92	0.0
39.5	-8.7	.09	-10.2	-15.5	2.81	-0.2
40.0	-9.1	.13	-8.6	-15.3	2.86	-0.2
40.5	-10.3	.29	-5.4	-15.4	2.62	-0.4
41.0	-13.6	.00	-12.9	-13.5	2.68	-0.4
41.5	-13.2	.00	-12.2	-15.3	2.48	-0.6
42.0	-11.9	.00	-12.3	-16.1	2.69	-0.4
42.5	-12.4	.30	-5.1	-18.0	3.36	0.4
43.0	-17.5	.08	-10.6	-18.8	2.81	-0.2
43.5	-20.8	.00	-14.8	-20.8	2.76	-0.3
44.0	-22.5	.00	-15.8	-24.2	3.10	0.1

## MAN-AcouSTICS #18: KIQWA OH-58 - LEVEL FLYOVER AT 500 FT

TIME	BRITISH			FRENCH		
	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE COEF (DB)	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE CORR (DB)
0.5	-27.6	.00	-13.6	-21.6	2.75	-0.3
1.0	-24.2	.00	-16.1	-20.7	3.37	0.4
1.5	-21.6	.00	-22.0	-18.4	3.50	0.6
2.0	-15.9	.07	-11.2	-12.6	5.63	3.0
2.5	-10.9	.00	-19.0	-8.5	4.94	2.2
3.0	-10.8	.00	-19.0	-6.9	3.57	0.7
3.5	-11.4	.00	-21.1	-6.3	3.18	0.2
4.0	-11.0	.00	-22.5	-5.6	2.82	-0.2
4.5	-11.2	.00	-18.5	-5.6	2.81	-0.2
5.0	-11.8	.00	-20.1	-6.0	2.85	-0.2
5.5	-11.1	.00	-23.0	-5.9	3.08	0.1
6.0	-10.6	.00	-24.2	-5.7	2.67	-0.4
6.5	-11.2	.00	-21.4	-5.8	2.80	-0.2
7.0	-12.3	.00	-17.0	-6.1	2.64	-0.4
7.5	-11.1	.00	-21.4	-6.7	2.89	0.0
8.0	-12.7	.00	-23.3	-6.4	2.72	-0.3
8.5	-13.0	.00	-20.2	-6.6	2.62	-0.4
9.0	-15.7	.00	-19.5	-7.1	2.69	-0.3
9.5	-16.4	.00	-24.0	-7.0	2.60	-0.5
10.0	-14.9	.00	-18.2	-7.2	2.71	-0.3
10.5	-15.6	.00	-22.1	-7.1	2.59	-0.5
11.0	-13.5	.00	-20.2	-7.3	2.75	-0.3
11.5	-13.5	.00	-21.4	-7.8	2.64	-0.4
12.0	-12.9	.00	-16.9	-7.7	3.04	0.0
12.5	-13.7	.00	-20.5	-7.3	2.78	-0.2
13.0	-12.8	.00	-21.4	-7.7	2.75	-0.3
13.5	-11.1	.00	-16.8	-7.3	2.86	-0.2
14.0	-8.6	.00	-24.5	-6.9	3.93	1.1
14.5	-9.4	.00	-24.3	-6.8	3.58	0.7
15.0	-9.5	.00	-21.4	-6.3	3.76	0.9
15.5	-8.8	.00	-18.8	-5.3	3.05	0.1
16.0	-9.7	.00	-19.6	-5.4	2.71	-0.3
16.5	-13.3	.00	-21.5	-4.9	2.72	-0.3
17.0	-9.3	.00	-15.6	-4.4	2.57	-0.5
17.5	-7.0	.00	-26.3	-3.8	2.62	-0.4
18.0	-6.1	.00	-22.6	-3.3	3.14	0.2
18.5	-3.9	.00	-25.2	-2.5	3.46	0.5
19.0	-4.0	.00	-24.7	-3.0	3.12	0.1
19.5	-5.2	.00	-25.3	-4.1	3.69	0.8
20.0	-6.0	.00	-25.7	-4.1	3.95	1.1
20.5	-3.7	.00	-20.6	-2.6	3.88	1.0
21.0	-3.5	.00	-21.4	-2.6	4.74	2.0
21.5	-4.9	.00	-27.4	-3.1	5.16	2.5
22.0	-3.9	.00	-29.1	-2.6	4.35	1.5
22.5	-4.6	.00	-25.8	-2.7	4.04	1.2
23.0	-3.0	.00	-26.0	-1.9	4.41	1.6
23.5	-3.7	.00	-26.3	-2.0	4.00	1.2
24.0	-2.9	.00	-24.5	-1.9	4.64	1.9
24.5	-2.8	.00	-27.8	-1.8	4.46	1.7
25.0	-2.6	.00	-23.7	-2.1	6.11	3.6



## MAN-ACOUSTICS #18: KIDWA OH-58 - LEVEL FLYOVER AT 500 FT

TIME	BRITISH			FRENCH		
	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE COEF (DB)	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE CORR (DB)
25.5	-1.5	.00	-28.7	-0.7	5.21	2.5
26.0	-1.6	.00	-26.5	-1.2	5.21	2.5
26.5	-1.8	.00	-29.1	-0.6	4.54	1.8
27.0	-2.6	.00	-27.4	-0.4	3.70	0.8
27.5	-2.4	.00	-26.5	-0.5	3.74	0.9
28.0	-2.5	.00	-24.3	-0.3	4.08	1.2
28.5	-1.6	.00	-29.6	-0.3	4.02	1.2
29.0	-1.0	.00	-27.6	-0.2	3.52	0.6
29.5	-1.1	.00	-32.1	0.0	3.13	0.1
30.0	-0.5	.00	-27.1	-0.2	2.89	0.0
30.5	0.0	.00	-23.6	0.0	2.98	0.0
31.0	-0.4	.00	-27.2	-0.5	3.31	0.4
31.5	0.0	.00	-28.0	-0.3	3.06	0.1
32.0	-0.2	.00	-24.6	-0.9	3.21	0.2
32.5	-1.0	.00	-23.3	-1.4	3.62	0.7
33.0	-1.5	.00	-24.5	-1.6	3.79	0.9
33.5	-2.5	.00	-24.6	-1.9	3.00	0.0
34.0	-1.6	.00	-27.9	-1.4	3.03	0.0
34.5	-2.8	.00	-28.1	-3.4	3.16	0.2
35.0	-3.0	.00	-17.4	-4.5	3.20	0.2
35.5	-2.6	.00	-18.2	-4.6	3.21	0.3
36.0	-2.4	.00	-22.0	-4.2	3.09	0.1
36.5	-3.7	.00	-24.4	-4.5	3.10	0.1
37.0	-3.0	.00	-20.2	-4.5	3.09	0.1
37.5	-4.5	.00	-21.3	-5.1	3.11	0.1
38.0	-3.7	.00	-26.0	-4.9	3.18	0.2
38.5	-4.4	.00	-25.4	-4.9	2.99	0.0
39.0	-3.8	.00	-21.6	-4.5	3.03	0.0
39.5	-5.4	.00	-23.3	-6.2	3.02	0.0
40.0	-6.3	.00	-22.8	-5.7	2.87	0.0
40.5	-5.8	.00	-20.4	-4.8	3.06	0.1
41.0	-6.5	.00	-21.6	-5.0	2.71	-0.3
41.5	-7.7	.00	-15.6	-5.6	2.92	0.0
42.0	-7.8	.00	-20.4	-6.6	2.81	-0.2
42.5	-7.5	.00	-20.5	-6.8	2.82	-0.2
43.0	-9.2	.00	-17.6	-6.9	2.98	0.0
43.5	-9.2	.00	-19.6	-7.2	2.81	-0.2
44.0	-7.9	.00	-16.7	-7.7	3.17	0.2
44.5	-7.5	.00	-18.3	-6.7	3.12	0.1
45.0	-7.3	.00	-21.3	-8.0	3.07	0.1
45.5	-9.2	.00	-18.4	-7.3	2.97	0.0
46.0	-11.2	.00	-18.0	-8.4	2.93	0.0
46.5	-11.4	.00	-19.0	-9.9	2.90	0.0
47.0	-11.4	.00	-22.1	-9.5	2.75	-0.3
47.5	-9.7	.00	-20.4	-8.3	2.94	0.0
48.0	-8.3	.00	-17.1	-8.5	3.21	0.2
48.5	-9.6	.00	-17.5	-9.9	3.18	0.2
49.0	-12.3	.00	-17.2	-11.1	2.98	0.0
49.5	-14.7	.00	-16.0	-12.3	3.08	0.1
50.0	-18.1	.00	-17.7	-13.5	2.75	-0.3

MAN-ACOUSTICS #18: KIOWA OH-58 - LEVEL FLYOVER AT 500 FT

TIME	BRITISH			FRENCH		
	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE COEF (DB)	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE CORR (DB)
50.5	-19.5	.00	-19.3	-16.3	2.88	0.0
51.0	-22.4	.09	-10.2	-19.8	3.39	0.4
51.5	-25.5	.00	-14.6	-21.7	2.71	-0.3
52.0	-25.9	.00	-15.8	-23.2	2.82	-0.2

## MAN-ACOUSTICS #19: KIOWA OH-58 - ROUTINE APPROACH

TIME	BRITISH			FRENCH		
	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE COEF (DB)	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE CORR (DB)
0.5	-16.9	.00	-22.9	-12.4	2.37	-0.7
1.0	-16.2	.00	-22.3	-11.3	2.48	-0.6
1.5	-16.3	.00	-21.0	-11.7	2.74	-0.3
2.0	-15.5	.22	-6.5	-12.3	2.97	0.0
2.5	-15.3	.55	-2.5	-12.4	2.88	0.0
3.0	-15.2	1.66	2.2	-12.0	2.73	-0.3
3.5	-16.1	.62	-2.1	-11.6	2.63	-0.4
4.0	-16.8	.40	-3.9	-11.7	2.53	-0.5
4.5	-16.4	.50	-3.0	-11.8	2.67	-0.4
5.0	-16.9	.54	-2.6	-12.1	2.38	-0.7
5.5	-16.7	.16	-7.7	-11.3	2.51	-0.6
6.0	-17.2	.07	-11.1	-11.2	2.52	-0.5
6.5	-16.7	.00	-14.5	-10.9	2.27	-0.8
7.0	-16.7	.00	-19.2	-10.6	2.44	-0.6
7.5	-17.0	.00	-20.2	-10.4	2.43	-0.6
8.0	-15.9	.00	-14.6	-10.9	2.48	-0.6
8.5	-13.9	.00	-18.1	-10.5	2.41	-0.7
9.0	-14.4	.00	-18.1	-10.6	2.30	-0.8
9.5	-14.2	.00	-21.7	-10.1	2.35	-0.7
10.0	-15.6	.00	-26.8	-10.0	2.32	-0.8
10.5	-16.4	.00	-24.2	-9.4	2.35	-0.7
11.0	-16.0	.00	-28.3	-9.1	2.31	-0.8
11.5	-15.4	.00	-25.1	-9.1	2.45	-0.6
12.0	-14.8	.00	-28.5	-8.9	2.52	-0.5
12.5	-14.5	.00	-26.2	-9.0	2.53	-0.5
13.0	-13.6	.00	-21.1	-8.9	2.52	-0.5
13.5	-12.8	.00	-18.1	-8.8	2.43	-0.6
14.0	-12.2	.00	-17.4	-9.1	2.43	-0.6
14.5	-11.2	.00	-19.6	-9.1	2.44	-0.6
15.0	-10.4	.10	-10.0	-9.3	2.52	-0.5
15.5	-10.4	.00	-16.0	-9.1	2.48	-0.6
16.0	-11.0	.00	-23.5	-9.1	2.28	-0.8
16.5	-11.9	.00	-18.2	-9.2	2.24	-0.9
17.0	-13.1	.00	-20.1	-9.0	2.23	-0.9
17.5	-13.1	.00	-22.1	-8.7	2.32	-0.8
18.0	-13.9	.00	-19.6	-8.4	2.15	-1.0
18.5	-14.8	.00	-16.2	-8.3	2.22	-0.9
19.0	-15.2	.00	-17.6	-8.6	2.38	-0.7
19.5	-14.4	.00	-20.8	-8.3	2.54	-0.5
20.0	-13.7	.00	-15.3	-8.2	2.71	-0.3
20.5	-11.9	.00	-19.2	-8.2	2.80	-0.2
21.0	-11.7	.00	-18.1	-8.3	2.78	-0.2
21.5	-11.1	.00	-17.0	-9.0	2.97	0.0
22.0	-10.0	.00	-17.9	-8.5	3.55	0.6
22.5	-8.8	.00	-19.9	-8.2	3.68	0.8
23.0	-8.4	.00	-26.5	-7.8	3.80	0.9
23.5	-7.6	.00	-20.1	-7.1	3.85	1.0
24.0	-7.0	.00	-19.9	-7.3	3.87	1.0
24.5	-7.3	.00	-19.3	-7.6	4.63	1.9
25.0	-7.0	.00	-22.1	-7.5	4.61	1.8

## MAN-ACOUSTICS #19: KIDWA OH-58 - ROUTINE APPROACH

TIME	BRITISH			FRENCH		
	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE COEF (DB)	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE CORR (DB)
25.5	-7.3	.00	-25.1	-7.1	3.61	0.7
26.0	-6.4	.00	-22.1	-6.5	4.61	1.8
26.5	-5.3	.00	-20.6	-6.1	4.38	1.6
27.0	-5.1	.00	-25.3	-6.0	4.58	1.8
27.5	-5.3	.00	-22.1	-5.9	4.35	1.5
28.0	-5.3	.00	-13.7	-5.6	3.89	1.0
28.5	-5.4	.00	-13.3	-6.0	3.82	0.9
29.0	-4.8	.07	-11.2	-5.8	4.66	1.9
29.5	-4.2	.06	-12.0	-5.5	5.04	2.3
30.0	-3.9	.00	-12.2	-4.9	4.98	2.3
30.5	-3.1	.00	-14.9	-4.2	4.20	1.4
31.0	-3.2	.06	-11.6	-4.2	4.15	1.3
31.5	-1.8	1.40	1.5	-3.5	5.14	2.5
32.0	-1.9	.16	-7.9	-3.0	3.84	1.0
32.5	-2.6	.00	-13.5	-3.3	3.56	0.6
33.0	-2.9	.00	-15.8	-3.1	3.69	0.8
33.5	-3.3	.00	-14.7	-2.9	3.61	0.7
34.0	-3.3	.00	-12.5	-3.5	3.85	1.0
34.5	-3.2	.00	-16.3	-3.2	3.93	1.1
35.0	-2.8	.00	-12.8	-2.7	4.22	1.4
35.5	-2.3	.00	-14.2	-2.5	3.97	1.1
36.0	-1.7	.00	-15.0	-2.3	3.71	0.8
36.5	-1.5	.00	-17.0	-2.3	3.68	0.8
37.0	-1.2	.00	-16.8	-2.3	3.51	0.6
37.5	0.0	.00	-20.1	-1.6	3.63	0.7
38.0	-0.6	.00	-25.6	-1.5	3.39	0.5
38.5	0.0	.00	-21.0	-0.6	3.30	0.4
39.0	0.0	.00	-18.7	0.0	2.82	-0.2
39.5	-0.5	.00	-17.7	-1.5	3.40	0.5
40.0	-0.2	.00	-19.0	-2.1	3.33	0.4
40.5	-0.5	.00	-21.7	-2.8	2.87	0.0
41.0	-1.4	.00	-22.0	-4.4	3.19	0.2
41.5	-1.7	.00	-21.2	-5.0	3.12	0.1
42.0	-2.9	.00	-26.1	-6.2	3.09	0.1
42.5	-3.3	.00	-21.9	-6.2	3.17	0.2
43.0	-2.7	.00	-23.3	-5.4	3.09	0.1
43.5	-2.0	.00	-20.4	-5.1	3.21	0.2
44.0	-2.6	.00	-14.8	-5.5	2.85	-0.2
44.5	-2.5	.00	-20.6	-6.2	3.15	0.2
45.0	-3.9	.00	-20.0	-7.0	3.22	0.3
45.5	-3.3	.00	-21.7	-6.7	2.89	0.0
46.0	-4.4	.00	-20.4	-7.8	2.72	-0.3
46.5	-5.9	.00	-22.7	-8.6	2.72	-0.3
47.0	-7.0	.00	-23.2	-9.4	2.69	-0.3
47.5	-8.1	.00	-20.7	-9.4	2.60	-0.5
48.0	-8.2	.00	-22.6	-9.1	2.64	-0.4
48.5	-7.6	.00	-18.8	-8.6	2.77	-0.3
49.0	-8.1	.00	-15.2	-9.0	2.61	-0.4
49.5	-9.8	.00	-22.2	-8.7	2.54	-0.5
50.0	-9.7	.00	-21.8	-8.9	2.59	-0.5

## MAN-ACOUSTICS #19: KIOWA OH-58 - ROUTINE APPROACH

TIME	BRITISH			FRENCH		
	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE COEF (DB)	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE CORR (DB)
50.5	-9.3	.00	-21.0	-8.6	2.73	-0.3
51.0	-9.8	.00	-17.0	-8.7	2.72	-0.3
51.5	-10.4	.00	-20.4	-8.2	2.67	-0.4
52.0	-10.8	.00	-20.1	-8.9	2.69	-0.4
52.5	-10.6	.00	-17.1	-9.8	2.85	-0.2
53.0	-9.5	.00	-18.9	-9.7	3.02	0.0
53.5	-8.7	.00	-12.6	-9.7	2.70	-0.3
54.0	-8.2	.06	-11.8	-10.3	2.54	-0.5
54.5	-7.5	.00	-15.9	-9.9	2.89	0.0
55.0	-8.0	.00	-13.7	-10.2	2.67	-0.4
55.5	-8.1	.00	-14.1	-10.4	2.71	-0.3
56.0	-8.3	.00	-19.0	-9.8	2.69	-0.3
56.5	-9.1	.00	-18.8	-9.9	2.64	-0.4
57.0	-10.2	.00	-17.9	-9.3	2.52	-0.5
57.5	-10.8	.00	-16.3	-9.1	2.63	-0.4
58.0	-10.9	.00	-19.6	-8.2	2.90	0.0
58.5	-10.6	.00	-20.9	-8.2	2.58	-0.5
59.0	-11.2	.00	-24.5	-8.1	2.60	-0.5
59.5	-11.5	.00	-20.4	-7.8	2.66	-0.4
60.0	-11.5	.00	-25.1	-8.3	2.46	-0.6
60.5	-11.2	.00	-17.9	-8.7	2.45	-0.6
61.0	-11.5	.00	-14.3	-8.5	2.41	-0.7
61.5	-12.3	.00	-17.1	-9.1	2.31	-0.8
62.0	-15.1	.17	-7.6	-11.7	2.45	-0.6
62.5	-18.6	.00	-21.8	-15.1	2.51	-0.6
63.0	-21.6	.00	-14.1	-17.4	2.49	-0.6
63.5	-25.2	.00	-21.3	-20.6	2.36	-0.7
64.0	-26.9	.00	-17.3	-22.8	2.42	-0.7

## MAN-ACOUSTICS #20: SEA KNIGHT - LEVEL FLYOVER AT 500 FT

TIME	BRITISH			FRENCH		
	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE COEF (DB)	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE CORR (DB)
0.5	-19.3	.11	-9.2	-11.7	2.94	0.0
1.0	-18.6	.27	-5.7	-9.8	2.39	-0.7
1.5	-17.9	.93	-0.3	-9.3	2.30	-0.8
2.0	-16.7	1.52	1.8	-8.8	2.47	-0.6
2.5	-15.9	.80	-0.9	-8.7	2.36	-0.7
3.0	-15.7	.83	-0.8	-8.8	2.63	-0.4
3.5	-15.7	.70	-1.5	-8.5	2.62	-0.4
4.0	-16.8	.42	-3.7	-8.5	2.51	-0.6
4.5	-16.5	.28	-5.4	-8.1	2.66	-0.4
5.0	-16.1	.63	-1.9	-8.0	2.90	0.0
5.5	-14.6	2.32	3.7	-7.9	3.14	0.2
6.0	-13.6	1.48	1.7	-7.9	3.53	0.6
6.5	-13.4	1.90	2.8	-7.6	3.62	0.7
7.0	-13.4	1.97	3.0	-7.4	3.72	0.8
7.5	-13.0	1.11	0.5	-7.1	3.64	0.7
8.0	-14.2	.59	-2.2	-6.7	3.33	0.4
8.5	-14.9	.16	-7.9	-6.4	2.63	-0.4
9.0	-15.3	.29	-5.3	-6.5	2.39	-0.7
9.5	-14.7	1.07	0.3	-6.7	2.57	-0.5
10.0	-14.7	.47	-3.2	-7.0	2.87	0.0
10.5	-14.7	.18	-7.2	-7.0	3.04	0.1
11.0	-13.8	.23	-6.3	-6.7	3.11	0.1
11.5	-11.9	2.51	4.0	-6.5	3.65	0.8
12.0	-11.6	2.90	4.6	-6.1	4.30	1.5
12.5	-11.5	1.90	2.8	-6.1	4.32	1.5
13.0	-11.3	1.93	2.9	-6.4	3.91	1.0
13.5	-15.1	.25	-5.9	-6.1	3.11	0.1
14.0	-14.9	.29	-5.3	-6.0	2.87	0.0
14.5	-11.7	.93	-0.3	-6.5	3.40	0.5
15.0	-12.3	2.23	3.5	-5.8	3.22	0.3
15.5	-12.9	2.42	3.8	-5.7	3.73	0.8
16.0	-12.8	.70	-1.5	-5.5	3.34	0.4
16.5	-10.8	2.15	3.3	-5.8	3.78	0.9
17.0	-8.7	3.37	5.3	-6.1	3.94	1.1
17.5	-5.3	7.25	8.6	-5.5	5.60	3.0
18.0	-3.4	8.14	9.1	-5.2	6.66	4.2
18.5	-4.5	7.45	8.7	-4.6	4.94	2.2
19.0	-1.1	9.23	9.7	-3.5	7.11	4.7
19.5	-2.2	7.20	8.6	-3.6	6.90	4.5
20.0	-1.6	6.13	7.9	-3.2	9.40	7.3
20.5	-1.7	6.51	8.1	-3.5	8.78	6.6
21.0	-1.4	6.34	8.0	-2.6	11.14	9.3
21.5	-0.9	6.99	8.4	-1.2	11.37	9.6
22.0	-0.4	3.94	6.0	-1.2	11.97	10.3
22.5	-0.5	4.75	6.8	0.0	10.05	8.1
23.0	0.0	2.71	4.3	-0.4	11.76	10.0
23.5	-0.6	2.28	3.6	-0.2	11.52	9.7
24.0	-2.0	2.54	4.1	0.0	9.69	7.7
24.5	-2.6	.81	-0.9	-0.4	7.27	4.9
25.0	-3.7	.99	0.0	-0.3	6.09	3.5



## MAN-ACOUSTICS #20: SEA KNIGHT - LEVEL FLYOVER AT 500 FT

TIME	BRITISH			FRENCH		
	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE COEF (DB)	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE CORR (DB)
25.5	-5.3	.15	-8.1	-2.1	5.08	2.4
26.0	-5.5	.42	-3.7	-2.2	6.34	3.8
26.5	-5.7	.43	-3.7	-3.5	6.47	4.0
27.0	-6.5	.10	-9.7	-5.2	4.90	2.2
27.5	-7.1	.12	-9.1	-5.4	3.70	0.8
28.0	-7.3	.00	-15.0	-6.3	2.93	0.0
28.5	-7.4	.00	-16.5	-7.1	2.77	-0.3
29.0	-8.3	.12	-9.0	-6.7	2.68	-0.4
29.5	-8.2	.00	-18.1	-8.0	2.62	-0.4
30.0	-9.6	.11	-9.5	-7.6	2.80	-0.2
30.5	-9.3	.22	-6.5	-7.7	2.98	0.0
31.0	-9.9	.00	-16.2	-8.9	2.88	0.0
31.5	-11.4	.08	-10.7	-8.8	3.18	0.2
32.0	-11.0	.36	-4.4	-9.2	3.49	0.6
32.5	-10.0	.00	-16.7	-9.5	3.42	0.5
33.0	-10.2	2.17	3.4	-9.6	4.99	2.3
33.5	-10.7	2.55	4.1	-9.3	5.39	2.7
34.0	-12.3	.00	-15.0	-10.0	3.02	0.0
34.5	-13.7	.20	-6.9	-10.5	3.41	0.5
35.0	-13.3	1.94	2.9	-9.3	4.92	2.2
35.5	-12.2	.54	-2.6	-11.0	3.86	1.0
36.0	-13.0	.25	-6.0	-10.8	4.01	1.2
36.5	-12.3	1.48	1.7	-10.8	4.48	1.7
37.0	-13.3	.06	-11.8	-11.8	3.48	0.5
37.5	-12.6	.34	-4.7	-12.0	3.90	1.0
38.0	-12.3	.50	-3.0	-12.0	5.81	3.2
38.5	-12.4	.14	-8.4	-13.5	3.32	0.4
39.0	-12.0	.00	-20.3	-13.2	3.83	1.0
39.5	-11.9	.00	-19.1	-13.2	3.96	1.1
40.0	-12.3	.00	-21.6	-14.1	3.08	0.1
40.5	-13.8	.00	-24.2	-13.6	2.89	0.0
41.0	-15.7	.00	-15.7	-12.8	2.87	0.0
41.5	-16.7	.00	-13.4	-13.5	2.88	0.0
42.0	-16.6	.00	-14.9	-12.4	3.36	0.4
42.5	-15.8	.00	-15.7	-12.3	2.80	-0.2
43.0	-15.4	.00	-15.9	-12.5	3.33	0.4
43.5	-14.9	.00	-13.5	-12.8	3.15	0.2
44.0	-14.7	.11	-9.2	-11.7	3.21	0.2
44.5	-15.1	.06	-11.6	-11.7	3.10	0.1

## MAN-ACOUSTICS #21: SEA KNIGHT - SHALLOW TURN OPERATION

TIME	BRITISH			FRENCH		
	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE COEF (DB)	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE CORR (DB)
0.5	-31.8	.13	-8.6	-25.9	3.77	0.9
1.0	-28.1	.44	-3.5	-23.6	4.39	1.6
1.5	-24.4	1.05	0.2	-20.2	4.08	1.2
2.0	-22.1	2.24	3.5	-19.4	4.67	1.9
2.5	-20.2	3.09	4.9	-17.6	4.61	1.8
3.0	-20.0	2.62	4.2	-17.2	4.51	1.7
3.5	-18.0	1.02	0.1	-16.1	4.00	1.2
4.0	-15.3	3.00	4.8	-13.5	4.55	1.8
4.5	-13.5	2.32	3.7	-11.4	3.54	0.6
5.0	-11.1	4.75	6.8	-9.0	4.93	2.2
5.5	-9.2	2.14	3.3	-6.3	4.17	1.3
6.0	-4.9	3.78	5.8	-3.7	5.68	3.1
6.5	-3.5	4.92	6.9	-3.1	6.97	4.5
7.0	-3.7	.73	-1.3	-2.6	5.02	2.3
7.5	-2.5	1.21	0.8	-2.5	4.49	1.7
8.0	-1.4	3.04	4.8	-2.5	8.70	6.5
8.5	-1.5	4.20	6.2	-3.0	11.07	9.2
9.0	-3.6	2.84	4.5	-2.2	6.35	3.8
9.5	-0.3	5.42	7.3	-1.4	11.81	10.1
10.0	0.0	4.88	6.9	-1.6	8.43	6.2
10.5	-0.6	2.29	3.6	-0.4	6.48	4.0
11.0	-1.8	3.44	5.4	-0.2	5.75	3.2
11.5	-1.2	1.92	2.8	0.0	5.18	2.5
12.0	-1.0	2.05	3.1	-1.1	6.42	3.9
12.5	-1.4	1.04	0.2	0.0	4.84	2.1
13.0	-1.2	.66	-1.8	-0.9	4.15	1.3
13.5	-2.4	.82	-0.8	-1.3	3.83	0.9
14.0	-2.9	.47	-3.2	-0.9	3.00	0.0
14.5	-2.6	.53	-2.8	-1.8	2.84	-0.2
15.0	-3.0	.16	-7.7	-1.9	3.37	0.4
15.5	-2.9	.44	-3.5	-2.0	3.47	0.5
16.0	-3.0	.31	-5.0	-1.4	3.32	0.4
16.5	-1.9	.33	-4.7	-0.7	4.17	1.3
17.0	-0.4	.52	-2.8	-0.6	3.95	1.1
17.5	-1.7	.43	-3.6	-0.4	3.76	0.9
18.0	-2.8	.26	-5.7	-0.7	3.12	0.1
18.5	-2.7	.45	-3.4	-1.6	3.20	0.2
19.0	-5.5	.00	-12.4	-1.8	2.61	-0.4
19.5	-4.2	.11	-9.3	-1.7	2.66	-0.4
20.0	-6.6	.10	-9.7	-0.8	2.42	-0.7
20.5	-4.1	.06	-11.6	-1.9	2.63	-0.4
21.0	-1.5	.19	-7.2	-2.9	3.34	0.4
21.5	-3.2	.47	-3.2	-3.4	3.35	0.4
22.0	-3.3	.23	-6.3	-4.1	3.33	0.4
22.5	-2.8	.22	-6.5	-4.0	3.63	0.7
23.0	-3.4	.16	-7.9	-3.7	3.23	0.3
23.5	-3.7	.00	-15.4	-3.3	3.16	0.2
24.0	-0.8	.13	-8.7	-3.0	3.36	0.4
24.5	-2.2	.00	-13.0	-4.0	3.37	0.4
25.0	-2.7	.00	-14.0	-4.6	3.70	0.8

## MAN-ACOUSTICS #21: SEA KNIGHT - SHALLOW TURN OPERATION

TIME	BRITISH			FRENCH		
	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE COEF (DB)	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE CORR (DB)
25.5	-4.0	.17	-7.5	-4.5	3.57	0.7
26.0	-3.7	.14	-8.4	-4.0	3.66	0.8
26.5	-3.1	.00	-14.4	-3.1	3.48	0.6
27.0	-3.0	.00	-13.5	-4.3	3.48	0.6
27.5	-2.2	.00	-14.9	-3.5	3.68	0.8
28.0	-3.1	.14	-8.4	-4.2	3.85	1.0
28.5	-2.2	.00	-12.7	-3.5	3.76	0.9
29.0	-1.3	.00	-13.7	-3.6	3.96	1.1
29.5	-1.7	.00	-13.2	-4.2	3.53	0.6
30.0	-2.0	.06	-12.0	-3.6	3.93	1.1
30.5	-0.6	.00	-14.1	-2.9	4.03	1.2
31.0	-1.2	.00	-12.2	-3.3	3.70	0.8
31.5	-1.5	.07	-11.3	-3.4	3.57	0.7
32.0	-3.5	.13	-8.8	-3.5	3.31	0.4
32.5	-2.9	.13	-8.6	-3.6	3.64	0.7
33.0	-0.7	.18	-7.4	-2.5	4.62	1.9
33.5	-1.7	.00	-13.2	-2.2	3.59	0.7
34.0	-1.3	.07	-11.0	-3.1	3.58	0.7
34.5	-1.6	.10	-9.7	-2.7	3.16	0.2
35.0	-0.4	.00	-13.3	-2.2	3.18	0.2
35.5	-2.6	.00	-14.0	-2.9	2.89	0.0
36.0	-1.6	.00	-13.9	-3.4	2.98	0.0
36.5	-2.3	.12	-8.9	-3.7	3.45	0.5
37.0	-2.9	.00	-16.6	-3.1	2.97	0.0
37.5	-2.7	.06	-11.9	-2.8	3.01	0.0
38.0	-2.4	.00	-15.1	-2.9	3.11	0.1
38.5	-1.9	.00	-12.8	-2.5	3.19	0.2
39.0	-2.0	.00	-13.8	-2.7	2.99	0.0
39.5	-1.5	.00	-13.0	-3.2	3.47	0.5
40.0	-1.1	.00	-18.7	-3.2	3.61	0.7
40.5	-1.6	.00	-14.8	-3.0	3.44	0.5
41.0	-0.4	.00	-15.5	-3.1	3.60	0.7
41.5	-1.1	.09	-10.1	-3.0	3.32	0.4
42.0	-1.6	.00	-13.2	-3.0	3.31	0.4
42.5	-0.7	.12	-9.1	-3.1	3.30	0.4
43.0	-0.2	.08	-10.5	-3.4	3.43	0.5
43.5	-0.5	.06	-11.7	-3.5	3.45	0.5
44.0	-0.2	.00	-12.6	-2.7	3.50	0.6
44.5	-0.3	.10	-9.9	-3.3	3.75	0.9
45.0	-1.0	.08	-10.6	-3.6	3.58	0.7
45.5	0.0	.00	-14.6	-3.6	3.54	0.6
46.0	-1.3	.00	-12.6	-2.7	3.41	0.5
46.5	-1.8	.00	-14.1	-3.5	2.94	0.0
47.0	-1.2	.00	-14.0	-3.7	3.12	0.1
47.5	-1.7	.00	-15.5	-3.8	2.99	0.0
48.0	-1.1	.00	-15.3	-3.4	3.42	0.5
48.5	0.0	.00	-14.1	-2.6	3.15	0.2
49.0	0.0	.00	-13.9	-2.2	3.21	0.2
49.5	-0.7	.00	-16.8	-2.3	3.71	0.8
50.0	-0.4	.00	-17.4	-1.9	3.65	0.7

## MAN-ACOUSTICS #21: SEA KNIGHT - SHALLOW TURN OPERATION

TIME	BRITISH			FRENCH		
	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE COEF (DB)	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE CORR (DB)
50.5	-0.5	.00	-18.6	-2.5	3.62	0.7
51.0	-0.8	.00	-18.0	-2.8	3.68	0.8
51.5	-0.9	.00	-20.1	-3.1	3.62	0.7
52.0	-1.4	.00	-20.1	-3.4	3.67	0.8
52.5	-0.9	.00	-20.8	-3.5	3.24	0.3
53.0	-1.6	.00	-15.6	-2.5	3.29	0.3
53.5	-0.7	.00	-13.9	-2.4	3.91	1.0
54.0	-1.6	.07	-11.5	-2.7	3.37	0.4
54.5	-1.5	.08	-10.5	-3.3	3.55	0.6
55.0	-1.7	.00	-12.7	-3.2	3.46	0.5
55.5	-1.4	.12	-9.1	-3.3	3.79	0.9
56.0	-3.0	.27	-5.7	-3.8	3.07	0.1
56.5	-2.4	.00	-12.6	-3.0	3.56	0.6
57.0	-2.5	.08	-10.9	-4.0	4.11	1.3
57.5	-2.4	.09	-10.1	-3.4	3.33	0.4
58.0	-2.1	.12	-9.1	-3.4	3.96	1.1
58.5	-2.4	.27	-5.6	-3.9	4.12	1.3
59.0	-2.1	.15	-8.1	-3.0	3.35	0.4
59.5	-3.2	.06	-11.7	-4.1	3.14	0.2
60.0	-3.5	.06	-11.7	-4.0	3.59	0.7
60.5	-3.1	.13	-8.7	-4.0	3.76	0.9
61.0	-3.3	.00	-12.7	-4.0	3.48	0.6
61.5	-3.7	.10	-9.7	-4.0	3.59	0.7
62.0	-3.4	.00	-13.0	-4.3	3.41	0.5
62.5	-2.7	.00	-13.9	-4.5	3.26	0.3
63.0	-2.3	.08	-10.5	-4.7	3.58	0.7
63.5	-2.1	.00	-14.3	-4.7	3.49	0.6
64.0	-2.7	.15	-8.1	-5.3	4.23	1.4
64.5	-3.6	.00	-12.1	-5.5	4.04	1.2
65.0	-4.0	.19	-7.2	-5.9	4.18	1.4
65.5	-3.4	.14	-8.4	-6.3	3.55	0.6
66.0	-3.8	.30	-5.1	-5.9	3.74	0.9
66.5	-4.3	.06	-11.8	-5.5	3.62	0.7
67.0	-4.3	.10	-9.7	-5.1	3.99	1.1
67.5	-4.1	.09	-10.1	-5.0	3.83	0.9
68.0	-4.4	.24	-6.2	-5.5	3.83	1.0
68.5	-4.6	.19	-7.0	-5.3	3.67	0.8
69.0	-4.5	.00	-12.7	-5.5	3.60	0.7
69.5	-4.2	.13	-8.8	-5.8	3.22	0.3
70.0	-4.5	.07	-11.3	-5.1	2.86	-0.2
70.5	-5.0	.00	-14.8	-5.4	3.13	0.2
71.0	-4.8	.12	-9.1	-5.6	3.16	0.2
71.5	-5.1	.00	-16.7	-5.7	3.10	0.1
72.0	-6.1	.06	-11.8	-5.2	3.09	0.1
72.5	-5.3	.07	-11.5	-5.8	3.02	0.0
73.0	-5.9	.00	-14.8	-6.4	3.31	0.4
73.5	-6.2	.00	-15.6	-5.6	3.16	0.2
74.0	-4.6	.00	-15.2	-5.4	2.90	0.0
74.5	-6.4	.00	-13.2	-4.6	2.98	0.0
75.0	-5.6	.00	-15.0	-4.0	2.96	0.0

## MAN-ACOUSTICS #21: SEA KNIGHT - SHALLOW TURN OPERATION

TIME	BRITISH			FRENCH		
	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE COEF (DB)	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE CORR (DB)
75.5	-4.8	.00	-13.7	-2.4	2.87	0.0
76.0	-6.5	.00	-13.7	-2.2	2.79	-0.2
76.5	-5.2	.00	-13.6	-1.8	2.86	-0.2
77.0	-6.0	.11	-9.4	-1.3	2.69	-0.3
77.5	-6.4	.00	-12.7	-1.6	2.46	-0.6
78.0	-8.5	.07	-11.1	-2.3	2.58	-0.5
78.5	-6.4	.00	-13.3	-3.1	3.01	0.0
79.0	-5.3	.00	-15.0	-3.5	3.13	0.2
79.5	-4.3	.08	-10.9	-3.7	3.56	0.6
80.0	-5.6	.00	-12.8	-4.3	3.43	0.5
80.5	-5.7	.00	-14.1	-4.8	3.36	0.4
81.0	-6.5	.06	-11.9	-5.1	3.04	0.1
81.5	-6.1	.08	-10.6	-4.8	2.90	0.0
82.0	-6.0	.00	-12.4	-4.2	2.81	-0.2
82.5	-8.0	.07	-11.2	-4.8	2.60	-0.5
83.0	-9.4	.22	-6.4	-5.5	3.12	0.1
83.5	-8.0	.67	-1.7	-4.3	3.84	1.0
84.0	-7.5	.51	-2.9	-4.8	3.03	0.0
84.5	-10.1	.10	-9.9	-5.1	2.82	-0.2
85.0	-9.3	.20	-6.9	-4.8	3.23	0.3
85.5	-8.7	.85	-0.7	-4.6	3.25	0.3
86.0	-8.0	.71	-1.5	-5.2	3.96	1.1
86.5	-8.2	.22	-6.6	-4.5	3.92	1.1
87.0	-7.4	1.06	0.3	-3.9	4.93	2.2
87.5	-6.0	.59	-2.2	-3.4	4.10	1.3
88.0	-8.2	.16	-7.9	-3.5	4.15	1.3
88.5	-8.0	.20	-6.8	-4.1	4.03	1.2
89.0	-8.0	.32	-4.9	-4.0	5.13	2.4
89.5	-9.0	.51	-2.9	-4.2	5.17	2.5
90.0	-8.0	1.87	2.7	-4.9	7.20	4.8
90.5	-7.9	.91	-0.4	-4.2	6.15	3.6
91.0	-8.8	.12	-9.0	-4.6	4.20	1.4
91.5	-6.3	1.41	1.5	-5.1	6.28	3.8
92.0	-6.7	.76	-1.2	-5.1	6.51	4.0
92.5	-7.8	.56	-2.5	-4.3	5.45	2.8
93.0	-8.6	.71	-1.5	-4.5	5.86	3.3
93.5	-8.2	1.32	1.2	-4.6	7.50	5.2
94.0	-8.4	1.83	2.6	-4.9	7.07	4.7
94.5	-8.4	1.82	2.6	-4.6	8.98	6.8
95.0	-9.4	1.04	0.2	-4.7	7.43	5.1
95.5	-11.1	.21	-6.6	-5.7	5.43	2.8
96.0	-13.2	.00	-12.0	-6.8	4.99	2.3
96.5	-13.9	.16	-7.8	-7.0	5.91	3.3
97.0	-12.7	.86	-0.6	-7.1	6.75	4.3
97.5	-15.0	.15	-8.2	-9.2	6.60	4.1
98.0	-17.2	.00	-17.0	-11.3	3.33	0.4

## MAN-ACOUSTICS #22: HUGHES 300 - STEEP TURN OPERATION

TIME	BRITISH			FRENCH		
	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE COEF (DB)	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE CORR (DB)
0.5	-16.2	.00	-18.9	-10.2	2.96	0.0
1.0	-12.1	.00	-18.1	-6.1	2.85	-0.2
1.5	-10.5	.00	-28.0	-5.2	2.48	-0.6
2.0	-11.2	.00	-26.7	-5.1	2.53	-0.5
2.5	-11.3	.00	-29.0	-5.5	2.86	-0.2
3.0	-11.7	.00	-24.9	-5.8	2.82	-0.2
3.5	-13.0	.00	-24.3	-5.8	2.91	0.0
4.0	-12.5	.00	-28.3	-5.7	2.91	0.0
4.5	-10.9	.00	-25.1	-5.6	3.16	0.2
5.0	-10.2	.00	-25.2	-5.7	3.34	0.4
5.5	-10.3	.00	-23.2	-5.1	3.35	0.4
6.0	-9.9	.00	-26.9	-4.8	3.09	0.1
6.5	-8.7	.00	-27.2	-4.1	3.06	0.1
7.0	-9.2	.00	-25.5	-3.5	2.76	-0.3
7.5	-9.6	.00	-31.5	-3.4	2.52	-0.5
8.0	-8.7	.00	-27.0	-3.5	2.83	-0.2
8.5	-8.7	.00	-25.4	-3.4	3.26	0.3
9.0	-10.5	.00	-28.0	-3.3	3.00	0.0
9.5	-9.8	.00	-29.0	-3.7	3.24	0.3
10.0	-8.6	.00	-25.4	-4.0	3.28	0.3
10.5	-8.3	.00	-28.7	-4.0	3.82	0.9
11.0	-8.2	.00	-26.3	-4.7	3.74	0.9
11.5	-8.3	.00	-27.0	-3.6	3.56	0.6
12.0	-8.6	.00	-24.3	-3.3	3.32	0.4
12.5	-8.0	.00	-27.3	-3.4	3.29	0.3
13.0	-7.1	.00	-27.0	-2.9	3.37	0.4
13.5	-7.0	.00	-28.4	-2.8	3.08	0.1
14.0	-6.6	.00	-26.5	-2.4	3.07	0.1
14.5	-6.3	.00	-27.6	-3.0	3.02	0.0
15.0	-6.9	.00	-25.0	-3.2	2.89	0.0
15.5	-6.8	.00	-25.3	-3.6	2.89	0.0
16.0	-6.3	.00	-30.9	-3.7	2.69	-0.3
16.5	-5.8	.00	-27.2	-3.6	2.92	0.0
17.0	-5.6	.00	-26.7	-3.9	2.98	0.0
17.5	-5.2	.00	-26.8	-3.7	2.86	-0.2
18.0	-3.7	.00	-24.4	-2.9	2.74	-0.3
18.5	-3.5	.00	-26.5	-2.8	2.84	-0.2
19.0	-3.2	.00	-22.0	-2.4	2.58	-0.5
19.5	-2.7	.00	-25.7	-2.6	2.89	0.0
20.0	-2.2	.00	-24.6	-3.0	3.13	0.2
20.5	-1.7	.00	-22.8	-3.9	3.13	0.2
21.0	-1.8	.00	-22.5	-3.6	3.01	0.0
21.5	-0.8	.00	-22.3	-2.5	3.10	0.1
22.0	-0.9	.00	-22.0	-2.3	2.85	-0.2
22.5	-0.9	.00	-22.3	-2.0	2.87	0.0
23.0	-2.3	.00	-22.2	-1.7	3.04	0.0
23.5	-1.7	.00	-22.6	-1.9	2.86	-0.2
24.0	-1.8	.00	-22.5	-2.3	3.09	0.1
24.5	-1.6	.00	-24.7	-1.6	2.85	-0.2
25.0	-1.9	.00	-19.5	-2.5	2.79	-0.2



## MAN-ACOUSTICS #22: HUGHES 300 - STEEP TURN OPERATION

TIME	BRITISH			FRENCH		
	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE COEF (DB)	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE CORR (DB)
25.5	-0.8	.00	-23.4	-2.2	2.96	0.0
26.0	-0.9	.00	-24.5	-1.9	2.92	0.0
26.5	-0.7	.00	-20.0	-1.9	2.98	0.0
27.0	0.0	.00	-22.3	-2.3	2.93	0.0
27.5	-0.7	.00	-23.6	-2.9	3.07	0.1
28.0	-1.1	.00	-23.9	-3.0	3.10	0.1
28.5	-0.5	.00	-24.4	-2.5	3.19	0.2
29.0	-1.0	.00	-22.2	-2.6	2.92	0.0
29.5	-1.3	.00	-21.8	-2.6	2.96	0.0
30.0	-1.4	.00	-25.0	-2.2	3.01	0.0
30.5	-0.8	.00	-22.2	-2.5	3.17	0.2
31.0	-1.0	.00	-22.1	-2.3	3.48	0.6
31.5	-0.8	.00	-23.0	-2.7	3.21	0.2
32.0	-1.0	.00	-22.6	-2.4	3.25	0.3
32.5	-1.0	.00	-23.6	-3.1	3.05	0.1
33.0	-0.7	.00	-19.9	-2.7	3.35	0.4
33.5	0.0	.00	-23.2	-2.8	3.13	0.2
34.0	-0.9	.00	-21.9	-2.4	3.09	0.1
34.5	-0.6	.00	-24.2	-2.6	3.17	0.2
35.0	-0.3	.00	-25.6	-2.4	3.24	0.3
35.5	-1.5	.00	-23.6	-2.3	3.10	0.1
36.0	-0.9	.00	-26.7	-3.1	2.93	0.0
36.5	-0.8	.00	-23.0	-3.2	2.98	0.0
37.0	-0.5	.00	-23.1	-3.0	3.15	0.2
37.5	-0.6	.00	-21.3	-3.2	3.16	0.2
38.0	-0.6	.00	-20.0	-3.8	3.06	0.1
38.5	-0.8	.00	-21.5	-3.6	3.12	0.1
39.0	-0.9	.00	-23.2	-3.5	2.92	0.0
39.5	-0.5	.00	-24.8	-2.4	2.93	0.0
40.0	-1.1	.00	-25.4	-2.6	2.90	0.0
40.5	-2.0	.00	-24.7	-2.6	3.04	0.1
41.0	-1.2	.00	-22.2	-2.3	3.06	0.1
41.5	-1.5	.00	-26.2	-2.1	2.78	-0.2
42.0	-1.6	.00	-26.1	-2.3	2.89	0.0
42.5	-0.8	.00	-26.1	-2.2	2.99	0.0
43.0	-0.8	.00	-22.5	-1.6	2.83	-0.2
43.5	-0.7	.00	-25.7	-1.2	3.04	0.1
44.0	-1.9	.00	-26.3	-1.8	2.96	0.0
44.5	-2.7	.00	-22.0	-2.3	2.88	0.0
45.0	-2.4	.00	-25.0	-2.7	2.77	-0.3
45.5	-1.6	.00	-23.0	-2.4	2.78	-0.2
46.0	-1.1	.00	-23.5	-2.5	2.99	0.0
46.5	-0.3	.00	-24.4	-1.8	3.22	0.3
47.0	-0.8	.00	-24.0	-2.1	3.00	0.0
47.5	-0.8	.00	-25.8	-2.0	2.99	0.0
48.0	-0.9	.00	-24.3	-2.2	3.02	0.0
48.5	-0.9	.00	-25.8	-2.3	3.02	0.0
49.0	-1.6	.00	-27.9	-2.4	2.97	0.0
49.5	-1.5	.00	-23.2	-2.9	2.83	-0.2
50.0	-1.4	.00	-20.7	-3.1	2.80	-0.2

## MAN-ACOUSTICS #22: HUGHES 300 - STEEP TURN OPERATION

TIME	BRITISH			FRENCH		
	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE COEF (DB)	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE CORR (DB)
50.5	-0.8	.00	-21.3	-3.1	3.38	0.4
51.0	-0.7	.00	-19.3	-2.4	3.22	0.3
51.5	0.0	.00	-20.5	-2.0	3.02	0.0
52.0	-0.4	.00	-24.3	-2.2	3.14	0.2
52.5	-0.3	.00	-20.2	-2.1	3.33	0.4
53.0	-0.5	.00	-23.6	-1.7	3.24	0.3
53.5	-0.7	.00	-21.3	-1.6	3.32	0.4
54.0	-0.6	.00	-19.7	-2.0	3.62	0.7
54.5	-0.8	.00	-17.9	-2.7	3.84	1.0
55.0	-2.7	.00	-17.3	-2.4	3.91	1.0
55.5	-0.6	.00	-21.0	-1.5	4.65	1.9
56.0	-0.5	.00	-19.9	-2.7	4.37	1.6
56.5	-0.5	.00	-18.9	-1.8	4.22	1.4
57.0	-1.6	.00	-18.3	-1.5	4.40	1.6
57.5	-3.4	.00	-14.5	-2.8	3.60	0.7
58.0	-3.8	.06	-12.0	-1.3	3.01	0.0
58.5	-4.7	.00	-16.3	0.0	2.37	-0.7
59.0	-2.8	.00	-15.2	-1.2	2.83	-0.2
59.5	-3.5	.00	-17.9	-1.9	3.36	0.4
60.0	-4.2	.00	-13.0	-2.6	3.34	0.4
60.5	-4.4	.00	-14.4	-1.1	2.68	-0.4
61.0	-3.6	.00	-17.3	-2.2	2.83	-0.2
61.5	-2.6	.00	-13.1	-2.0	3.16	0.2
62.0	-4.7	.00	-14.2	-2.1	2.50	-0.6
62.5	-6.1	.00	-19.2	-1.0	2.15	-1.0
63.0	-8.0	.00	-15.7	-0.7	2.10	-1.0
63.5	-8.4	.00	-20.9	-1.0	2.03	-1.1
64.0	-6.3	.00	-12.3	-1.6	2.16	-0.9
64.5	-5.2	.07	-11.1	-1.6	2.28	-0.8
65.0	-5.0	.00	-13.3	-1.4	2.39	-0.7
65.5	-3.8	.00	-12.7	-2.9	2.80	-0.2
66.0	-5.3	.00	-15.4	-2.7	2.56	-0.5
66.5	-7.5	.00	-18.2	-2.5	2.41	-0.7
67.0	-7.6	.00	-15.9	-1.7	2.28	-0.8
67.5	-8.3	.00	-29.0	0.0	2.10	-1.0
68.0	-6.3	.07	-11.2	-0.2	2.04	-1.1
68.5	-4.1	.07	-11.0	-0.8	2.25	-0.9
69.0	-3.4	.00	-13.8	-2.0	2.81	-0.2
69.5	-4.2	.00	-16.7	-2.0	2.69	-0.3
70.0	-6.5	.00	-13.0	-2.3	2.60	-0.4
70.5	-7.1	.00	-17.9	-2.8	2.38	-0.7
71.0	-7.0	.00	-15.1	-4.1	2.41	-0.7
71.5	-5.7	.00	-12.3	-5.5	3.06	0.1
72.0	-5.5	.09	-10.4	-4.7	3.24	0.3
72.5	-7.2	.00	-16.9	-3.0	2.52	-0.5
73.0	-8.4	.00	-17.3	-2.9	2.50	-0.6
73.5	-9.6	.00	-24.5	-2.1	2.13	-1.0
74.0	-8.9	.00	-23.0	-1.7	2.08	-1.0
74.5	-8.4	.00	-22.4	-1.9	2.04	-1.1
75.0	-7.9	.00	-12.5	-2.0	2.07	-1.1

## MAN-ACOUSTICS #22: HUGHES 300 - STEEP TURN OPERATION

TIME	BRITISH			FRENCH		
	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE COEF (DB)	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE CORR (DB)
75.5	-7.7	.00	-16.2	-2.6	2.11	-1.0
76.0	-7.2	.00	-14.8	-2.1	2.41	-0.7
76.5	-6.4	.08	-10.9	-1.9	2.28	-0.8
77.0	-8.2	.00	-15.9	-2.3	2.33	-0.8
77.5	-8.2	.00	-15.4	-3.2	2.61	-0.4
78.0	-10.1	.00	-12.2	-4.3	3.22	0.3
78.5	-11.9	.00	-15.1	-6.8	3.10	0.1
79.0	-13.8	.00	-19.4	-8.6	2.38	-0.7
79.5	-15.1	.00	-14.5	-9.1	2.50	-0.6
80.0	-16.7	.00	-12.9	-11.6	2.28	-0.8

## MAN-ACOUSTICS #23: BELL UH-1H (HUEY) - ROUTINE TAKEOFF

TIME	BRITISH			FRENCH		
	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE COEF (DB)	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE CORR (DB)
0.5	-13.5	1.71	2.3	-7.2	3.01	0.0
1.0	-12.5	3.64	5.6	-6.3	3.14	0.2
1.5	-10.8	4.26	6.3	-6.5	3.25	0.3
2.0	-13.4	3.45	5.4	-5.6	2.69	-0.3
2.5	-13.8	4.29	6.3	-6.2	2.96	0.0
3.0	-13.3	4.96	7.0	-5.6	2.45	-0.6
3.5	-15.5	.44	-3.5	-5.0	2.73	-0.3
4.0	-15.6	.14	-8.5	-5.3	2.58	-0.5
4.5	-14.9	1.09	0.4	-4.8	2.48	-0.6
5.0	-15.2	.15	-8.2	-5.4	2.42	-0.7
5.5	-14.4	.30	-5.1	-4.4	2.66	-0.4
6.0	-14.7	.43	-3.6	-4.5	2.66	-0.4
6.5	-13.9	.58	-2.3	-4.7	2.76	-0.3
7.0	-14.6	.41	-3.8	-3.9	2.97	0.0
7.5	-13.9	.16	-7.8	-4.3	2.80	-0.2
8.0	-13.7	.23	-6.2	-3.9	2.76	-0.3
8.5	-12.8	.44	-3.5	-3.2	3.08	0.1
9.0	-12.7	.34	-4.6	-3.5	2.72	-0.3
9.5	-11.5	.25	-5.9	-3.0	3.04	0.0
10.0	-9.4	.47	-3.3	-3.5	2.75	-0.3
10.5	-7.5	.40	-3.9	-3.4	3.11	0.1
11.0	-7.9	.33	-4.8	-3.1	3.53	0.6
11.5	-8.8	.54	-2.7	-2.7	3.14	0.2
12.0	-10.5	.69	-1.6	-1.5	3.34	0.4
12.5	-11.0	.66	-1.8	-1.4	3.25	0.3
13.0	-10.8	.62	-2.1	-0.8	3.30	0.3
13.5	-8.9	.67	-1.7	-1.0	3.59	0.7
14.0	-6.8	.43	-3.7	-0.6	3.15	0.2
14.5	-6.3	.40	-4.0	-0.6	3.42	0.5
15.0	-7.2	.38	-4.3	-0.4	3.39	0.5
15.5	-8.0	.49	-3.0	0.0	2.80	-0.2
16.0	-5.5	2.05	3.1	-0.2	3.18	0.2
16.5	-4.6	.46	-3.3	-0.4	2.93	0.0
17.0	-1.9	.82	-0.8	-0.7	2.81	-0.2
17.5	-2.1	.96	-0.2	-0.6	2.65	-0.4
18.0	-1.4	.52	-2.8	-2.2	2.69	-0.3
18.5	-1.2	.15	-8.1	-5.1	3.34	0.4
19.0	0.0	.14	-8.5	-5.6	4.22	1.4
19.5	-1.0	.00	-16.5	-4.4	3.29	0.3
20.0	-1.3	.00	-19.3	-5.1	2.69	-0.3
20.5	-1.7	.06	-11.8	-6.3	3.08	0.1
21.0	-3.4	.09	-10.0	-7.1	2.74	-0.3
21.5	-4.9	.00	-16.1	-8.6	2.91	0.0
22.0	-6.4	.00	-12.4	-8.4	2.63	-0.4
22.5	-8.3	.17	-7.7	-9.0	2.97	0.0
23.0	-11.1	.00	-18.1	-8.8	2.60	-0.5
23.5	-9.3	.63	-2.0	-9.9	2.95	0.0
24.0	-12.0	.00	-20.0	-10.4	2.95	0.0
24.5	-12.1	.00	-16.1	-10.1	2.72	-0.3
25.0	-13.4	.00	-22.8	-10.5	2.81	-0.2

MAN-ACOUSTICS #23: BELL UH-1H (HUEY) - ROUTINE TAKEOFF

TIME	BRITISH			FRENCH		
	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE COEF (DB)	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE CORR (DB)
25.5	-14.8	.00	-25.1	-8.8	2.40	-0.7
26.0	-16.0	.00	-20.3	-10.9	2.64	-0.4
26.5	-16.9	.00	-21.4	-10.0	2.44	-0.6
27.0	-16.8	.00	-26.5	-10.5	2.69	-0.3

## MAN-ACOUSTICS #24: HUGHES 300 - LEVEL FLYOVER AT 500 FT

TIME	BRITISH			FRENCH		
	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE COEF (DB)	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE CORR (DB)
0.5	-20.1	.10	-9.7	-15.5	3.46	0.5
1.0	-14.6	.00	-19.0	-10.3	2.75	-0.3
1.5	-13.7	.00	-23.7	-9.0	2.53	-0.5
2.0	-12.9	.00	-28.0	-8.6	2.59	-0.5
2.5	-13.4	.00	-23.5	-8.2	2.62	-0.4
3.0	-12.9	.00	-26.3	-7.9	2.72	-0.3
3.5	-12.6	.00	-28.1	-7.2	2.33	-0.8
4.0	-12.8	.00	-25.2	-6.8	2.34	-0.8
4.5	-12.0	.00	-20.6	-6.4	2.43	-0.6
5.0	-10.3	.00	-24.5	-6.5	2.41	-0.7
5.5	-10.2	.00	-29.7	-7.0	2.50	-0.6
6.0	-9.9	.00	-22.8	-6.5	2.50	-0.6
6.5	-8.9	.00	-25.8	-5.7	2.82	-0.2
7.0	-8.2	.00	-26.5	-5.5	2.95	0.0
7.5	-9.1	.00	-24.2	-5.7	2.65	-0.4
8.0	-10.3	.00	-23.8	-5.9	2.39	-0.7
8.5	-9.5	.00	-27.5	-5.8	2.53	-0.5
9.0	-10.4	.00	-24.3	-5.8	2.68	-0.4
9.5	-11.1	.00	-22.4	-5.7	2.38	-0.7
10.0	-8.7	.00	-22.6	-5.1	2.81	-0.2
10.5	-7.3	.00	-24.8	-5.2	3.03	0.0
11.0	-6.3	.00	-26.0	-5.0	2.89	0.0
11.5	-6.8	.00	-21.6	-4.9	2.66	-0.4
12.0	-7.5	.00	-24.2	-5.2	2.63	-0.4
12.5	-7.8	.00	-28.3	-5.2	2.89	0.0
13.0	-8.2	.00	-25.9	-4.9	2.85	-0.2
13.5	-7.8	.00	-24.8	-4.4	2.66	-0.4
14.0	-7.6	.00	-27.8	-4.6	2.81	-0.2
14.5	-8.5	.00	-24.3	-5.2	2.88	0.0
15.0	-9.3	.00	-26.3	-5.3	2.77	-0.3
15.5	-9.2	.00	-26.7	-4.3	2.88	0.0
16.0	-9.2	.00	-26.0	-4.4	2.82	-0.2
16.5	-8.5	.00	-26.3	-4.0	2.65	-0.4
17.0	-8.7	.00	-25.1	-3.7	2.83	-0.2
17.5	-8.4	.00	-25.9	-3.4	2.71	-0.3
18.0	-6.9	.00	-23.0	-4.0	2.96	0.0
18.5	-4.9	.00	-24.7	-4.1	3.37	0.4
19.0	-5.4	.00	-26.9	-4.2	3.05	0.1
19.5	-5.1	.00	-24.7	-3.9	3.14	0.2
20.0	-5.1	.00	-23.3	-4.1	3.01	0.0
20.5	-5.2	.00	-23.6	-3.7	2.85	-0.2
21.0	-5.0	.00	-28.4	-3.4	2.71	-0.3
21.5	-5.0	.00	-20.5	-3.9	2.58	-0.5
22.0	-3.6	.00	-22.5	-4.5	2.62	-0.4
22.5	-4.1	.00	-27.0	-4.1	2.64	-0.4
23.0	-3.5	.00	-29.9	-4.2	2.55	-0.5
23.5	-2.5	.00	-25.1	-3.7	2.68	-0.4
24.0	-1.8	.00	-22.9	-3.6	2.81	-0.2
24.5	-2.5	.00	-21.8	-3.8	2.97	0.0
25.0	-1.7	.00	-30.6	-2.8	2.86	-0.2



## MAN-ACOUSTICS #24: HUGHES 300 - LEVEL FLYOVER AT 500 FT

TIME	BRITISH			FRENCH		
	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE COEF (DB)	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE CORR (DB)
25.5	-2.2	.00	-28.0	-2.6	2.73	-0.3
26.0	-1.5	.00	-26.3	-1.8	2.56	-0.5
26.5	-2.0	.00	-22.9	-1.4	2.46	-0.6
27.0	-1.6	.00	-22.7	-0.7	2.49	-0.6
27.5	-1.8	.00	-24.9	-0.5	2.37	-0.7
28.0	-1.6	.00	-24.4	0.0	2.26	-0.8
28.5	-1.7	.00	-25.1	-1.2	2.52	-0.5
29.0	-2.1	.00	-23.9	-0.8	2.36	-0.7
29.5	-2.4	.00	-25.5	-1.3	2.49	-0.6
30.0	-1.1	.00	-25.8	-2.6	2.83	-0.2
30.5	-1.0	.00	-23.2	-3.4	2.84	-0.2
31.0	-0.5	.00	-20.9	-3.1	2.99	0.0
31.5	-0.5	.00	-16.1	-3.7	3.16	0.2
32.0	0.0	.00	-21.9	-3.1	2.94	0.0
32.5	0.0	.00	-16.5	-3.1	3.04	0.0
33.0	-0.8	.00	-19.6	-2.8	3.16	0.2
33.5	-0.8	.00	-22.8	-2.4	3.04	0.1
34.0	-1.3	.00	-16.3	-2.8	3.08	0.1
34.5	-1.4	.00	-19.2	-3.9	3.35	0.4
35.0	-2.1	.00	-19.2	-3.1	3.09	0.1
35.5	-1.7	.00	-17.9	-3.3	3.07	0.1
36.0	-2.3	.00	-20.0	-2.4	2.68	-0.4
36.5	-1.7	.00	-19.0	-3.8	2.88	0.0
37.0	-2.2	.00	-16.3	-3.2	2.99	0.0
37.5	-2.3	.00	-15.2	-3.2	3.02	0.0
38.0	-2.2	.00	-17.1	-2.6	2.76	-0.3
38.5	-2.7	.00	-18.6	-3.5	2.69	-0.4
39.0	-2.9	.00	-13.6	-3.7	2.83	-0.2
39.5	-3.2	.00	-18.9	-2.8	2.57	-0.5
40.0	-3.3	.00	-13.5	-3.0	2.68	-0.4
40.5	-3.3	.00	-21.5	-2.8	2.66	-0.4
41.0	-3.3	.00	-20.5	-3.1	2.69	-0.3
41.5	-2.3	.00	-16.9	-3.7	3.10	0.1
42.0	-2.8	.00	-15.3	-3.6	3.04	0.1
42.5	-3.2	.00	-19.1	-3.4	2.85	-0.2
43.0	-3.2	.00	-16.1	-3.4	2.79	-0.2
43.5	-4.0	.00	-14.4	-2.8	2.53	-0.5
44.0	-4.4	.00	-14.8	-2.6	2.34	-0.7
44.5	-5.2	.00	-21.1	-2.9	2.18	-0.9
45.0	-5.7	.00	-18.9	-3.4	2.16	-1.0
45.5	-5.6	.00	-15.0	-3.7	2.25	-0.8
46.0	-5.7	.08	-10.7	-3.9	2.23	-0.9
46.5	-6.3	.00	-13.8	-4.9	2.36	-0.7
47.0	-6.2	.00	-15.9	-5.0	2.59	-0.5
47.5	-5.7	.00	-16.3	-5.0	2.77	-0.3
48.0	-6.1	.00	-19.6	-5.2	2.49	-0.6
48.5	-5.8	.00	-13.7	-5.3	2.58	-0.5
49.0	-4.5	.00	-14.1	-5.1	3.00	0.0
49.5	-3.1	.00	-17.4	-6.3	3.79	0.9
50.0	-4.2	.09	-10.3	-6.2	3.25	0.3

## MAN-Acoustics #24: HUGHES 300 - LEVEL FLYOVER AT 500 FT

TIME	BRITISH			FRENCH		
	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE COEF (DB)	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE CORR (DB)
50.5	-5.3	.00	-16.5	-6.0	2.75	-0.3
51.0	-6.4	.00	-17.8	-6.3	2.46	-0.6
51.5	-6.7	.00	-18.1	-6.1	2.39	-0.7
52.0	-7.0	.00	-17.4	-6.8	2.53	-0.5
52.5	-6.4	.00	-19.4	-6.7	2.91	0.0
53.0	-7.4	.00	-22.0	-6.5	2.91	0.0
53.5	-7.0	.00	-23.3	-6.5	2.72	-0.3
54.0	-8.0	.00	-26.3	-5.8	2.48	-0.6
54.5	-6.7	.00	-13.7	-4.9	2.56	-0.5
55.0	-6.1	.00	-18.4	-4.1	2.59	-0.5
55.5	-5.3	.00	-18.5	-3.9	2.70	-0.3
56.0	-6.1	.00	-21.6	-3.8	2.56	-0.5
56.5	-4.9	.00	-19.1	-4.0	2.64	-0.4
57.0	-4.3	.00	-14.7	-5.0	3.31	0.4
57.5	-6.2	.00	-17.8	-4.8	3.15	0.2
58.0	-7.6	.00	-19.5	-5.1	3.01	0.0
58.5	-8.1	.00	-25.6	-5.7	2.83	-0.2
59.0	-7.5	.00	-16.3	-7.1	3.09	0.1
59.5	-8.5	.00	-20.0	-7.3	3.04	0.0
60.0	-8.2	.00	-19.3	-8.5	3.07	0.1
60.5	-9.0	.00	-20.8	-7.6	3.24	0.3
61.0	-8.8	.00	-20.2	-7.8	3.23	0.3
61.5	-8.2	.00	-19.4	-6.9	2.96	0.0
62.0	-8.5	.00	-23.8	-6.0	2.90	0.0
62.5	-8.0	.00	-16.4	-6.1	2.88	0.0
63.0	-8.0	.00	-19.2	-6.6	3.21	0.2
63.5	-8.6	.00	-21.4	-6.6	2.94	0.0
64.0	-8.3	.00	-16.9	-6.2	2.83	-0.2
64.5	-9.5	.00	-24.9	-6.1	2.56	-0.5
65.0	-8.8	.00	-25.3	-6.6	2.45	-0.6
65.5	-9.3	.00	-26.2	-6.8	2.31	-0.8
66.0	-9.2	.00	-23.4	-6.6	2.46	-0.6
66.5	-8.4	.00	-19.3	-6.6	2.61	-0.4
67.0	-7.0	.00	-16.0	-6.6	2.79	-0.2
67.5	-7.2	.00	-21.0	-6.4	2.84	-0.2
68.0	-7.2	.00	-24.0	-6.0	3.00	0.0
68.5	-7.1	.00	-21.0	-5.4	2.87	0.0
69.0	-7.2	.00	-19.6	-5.2	2.89	0.0
69.5	-6.9	.00	-25.0	-5.1	3.13	0.2
70.0	-6.4	.00	-19.3	-5.4	3.56	0.6
70.5	-7.2	.00	-20.3	-5.9	3.68	0.8
71.0	-9.0	.00	-18.6	-7.9	3.71	0.8
71.5	-13.6	.00	-17.0	-12.7	3.55	0.6
72.0	-17.4	.00	-13.8	-17.4	3.36	0.4
72.5	-18.0	.00	-12.3	-18.7	3.21	0.2
73.0	-19.2	.00	-12.7	-20.4	3.21	0.2

MAN-ACOUSTICS #1: SIMULATION - TRN W/NO SLAP (STANDARD)

TIME	PEAK SPL	TIME	PEAK SPL	TIME	PEAK SPL	TIME	PEAK SPL
0.5	69.5						
1.0	71.6						
1.5	85.5						
2.0	96.8						
2.5	100.0						
3.0	101.5						
3.5	101.4						
4.0	103.0						
4.5	101.7						
5.0	101.7						
5.5	103.6						
6.0	102.6						
6.5	102.0						
7.0	102.4						
7.5	101.9						
8.0	102.5						
8.5	101.6						
9.0	102.4						
9.5	102.1						
10.0	102.4						
10.5	102.3						
11.0	100.7						
11.5	101.3						
12.0	102.3						
12.5	102.9						
13.0	100.8						
13.5	101.6						
14.0	99.4						
14.5	98.4						
15.0	93.3						
15.5	90.1						
16.0	65.6						
16.5	65.2						
17.0	63.2						
17.5	62.9						
18.0	64.2						

MAN-ACOUSTICS #2: SIMULATION - TRN W/ LT SLAP AT 10 BPS

TIME	PEAK SPL	TIME	PEAK SPL	TIME	PEAK SPL	TIME	PEAK SPL
0.5	68.0						
1.0	67.1						
1.5	66.3						
2.0	68.1						
2.5	61.4						
3.0	71.2						
3.5	90.7						
4.0	95.1						
4.5	100.3						
5.0	101.0						
5.5	102.3						
6.0	103.1						
6.5	101.8						
7.0	101.7						
7.5	100.6						
8.0	101.1						
8.5	100.4						
9.0	102.0						
9.5	101.6						
10.0	100.6						
10.5	101.7						
11.0	103.5						
11.5	101.5						
12.0	101.6						
12.5	102.3						
13.0	102.4						
13.5	101.2						
14.0	103.4						
14.5	101.5						
15.0	101.4						
15.5	99.6						
16.0	96.3						
16.5	88.5						
17.0	74.5						
17.5	71.5						

MAN ACOUSTICS #13 SIMULATION - TRN W/NOISE SLAP AT 10 BPS

TIME	PEAK SPL	TIME	PEAK SPL	TIME	PEAK SPL	TIME	PEAK SPL
0.5	63.4						
1.0	62.5						
1.5	69.6						
2.0	65.0						
2.5	64.7						
3.0	65.2						
3.5	70.9						
4.0	82.2						
4.5	89.3						
5.0	96.1						
5.5	98.1						
6.0	101.6						
6.5	100.6						
7.0	100.0						
7.5	100.5						
8.0	100.8						
8.5	98.7						
9.0	99.0						
9.5	100.3						
10.0	102.2						
10.5	99.5						
11.0	101.1						
11.5	99.7						
12.0	99.2						
12.5	99.5						
13.0	101.1						
13.5	100.5						
14.0	100.2						
14.5	99.1						
15.0	99.4						
15.5	99.5						
16.0	98.5						
16.5	101.0						
17.0	98.6						
17.5	95.0						
18.0	89.5						
18.5	86.5						
19.0	63.7						

MAN-ACOUSTICS #4. SIMULATION - TRN W/ HVY SLAP AT 10 BPS

TIME	PEAK SPL	TIME	PEAK SPL	TIME	PEAK SPL	TIME	PEAK SPL
0.5	62.9						
1.0	70.2						
1.5	67.0						
2.0	70.6						
2.5	66.0						
3.0	67.7						
3.5	64.5						
4.0	72.4						
4.5	84.9						
5.0	91.8						
5.5	95.5						
6.0	97.3						
6.5	97.1						
7.0	96.0						
7.5	96.3						
8.0	96.4						
8.5	97.0						
9.0	97.9						
9.5	97.9						
10.0	96.2						
10.5	95.9						
11.0	96.0						
11.5	95.5						
12.0	96.2						
12.5	95.5						
13.0	97.2						
13.5	95.7						
14.0	97.1						
14.5	98.1						
15.0	95.2						
15.5	97.9						
16.0	95.5						
16.5	95.3						
17.0	95.9						
17.5	94.1						
18.0	73.8						
18.5	66.1						
19.0	69.6						
19.5	66.7						



MAN-ACOUSTICS #0: SIMULATION - TRN W/ MOD SLAP AT 6 MPS

TIME	PEAK SPL	TIME	PEAK SPL	TIME	PEAK SPL	TIME	PEAK SPL
0.5	64.0						
1.0	65.0						
1.5	74.0						
2.0	86.6						
2.5	95.2						
3.0	98.3						
3.5	98.6						
4.0	99.4						
4.5	99.7						
5.0	100.3						
5.5	100.1						
6.0	101.0						
6.5	100.9						
7.0	99.9						
7.5	100.3						
8.0	101.1						
8.5	99.8						
9.0	99.9						
9.5	100.5						
10.0	99.1						
10.5	98.8						
11.0	99.6						
11.5	99.3						
12.0	99.4						
12.5	100.5						
13.0	100.6						
13.5	100.7						
14.0	101.0						
14.5	100.1						
15.0	97.2						
15.5	91.2						
16.0	71.2						
16.5	69.7						
17.0	68.8						

MAN ACQUISITION #6: SIMULATION - TRN BL MOD SLAP AT 18 BPS

TIME	PEAK SPL	TIME	PEAK SPL	TIME	PEAK SPL	TIME	PEAK SPL
0.5	63.6						
1.0	66.5						
1.5	71.4						
2.0	88.2						
2.5	92.7						
3.0	96.3						
3.5	97.1						
4.0	100.6						
4.5	98.5						
5.0	99.6						
5.5	99.7						
6.0	99.0						
6.5	99.6						
7.0	99.7						
7.5	100.1						
8.0	99.1						
8.5	100.7						
9.0	99.7						
9.5	100.1						
10.0	101.1						
10.5	101.1						
11.0	99.5						
11.5	99.4						
12.0	100.7						
12.5	99.6						
13.0	99.7						
13.5	99.0						
14.0	101.7						
14.5	98.7						
15.0	96.4						
15.5	94.7						
16.0	79.5						
16.5	65.8						
17.0	69.3						
17.5	62.1						

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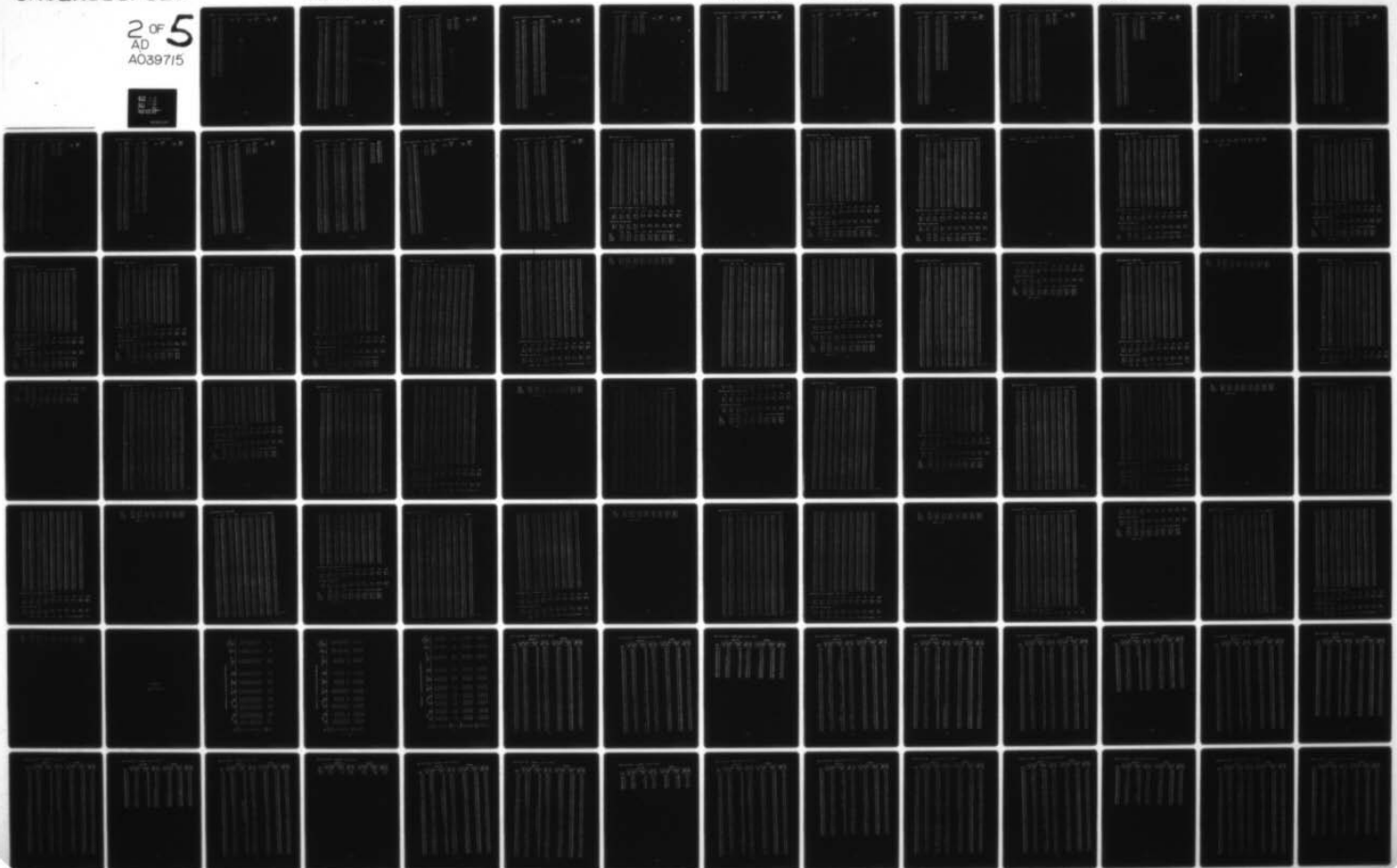
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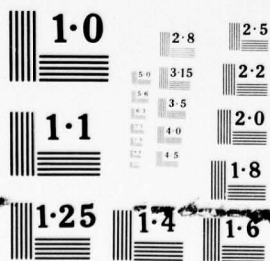
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NATIONAL BUREAU OF STANDARDS  
MICROCOPY RESOLUTION TEST CHART

MAN-Acoustics #201 SEA KNIGHT - LEVEL FLYOVER AT 500 FT.

TIME	PEAK SPL	TIME	PEAK SPL	TIME	PEAK SPL	TIME	PEAK SPL
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MAN-ACOUSTICS #7: SIMULATION - TRN W/ MOD SLAP AT 10 BPS

TIME	PEAK SPL	TIME	PEAK SPL	TIME	PEAK SPL	TIME	PEAK SPL
0.5	62.4						
1.0	62.2						
1.5	80.1						
2.0	98.2						
2.5	101.3						
3.0	103.7						
3.5	105.5						
4.0	103.4						
4.5	102.0						
5.0	105.6						
5.5	105.0						
6.0	102.5						
6.5	102.2						
7.0	106.6						
7.5	104.3						
8.0	102.2						
8.5	102.2						
9.0	105.3						
9.5	105.0						
10.0	102.3						
10.5	104.7						
11.0	105.4						
11.5	102.2						
12.0	102.3						
12.5	102.2						
13.0	105.3						
13.5	102.3						
14.0	101.3						
14.5	99.4						
15.0	83.2						
15.5	71.6						
16.0	62.0						

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## MAN-Acoustics #8: BOEING 747 TAKEOFF

TIME	PEAK SPL	TIME	PEAK SPL	TIME	PEAK SPL	TIME	PEAK SPL
0.5	77.0	25.5	99.4				
1.0	80.4	26.0	100.1				
1.5	82.7	26.5	99.8				
2.0	84.3	27.0	100.0				
2.5	87.1	27.5	99.7				
3.0	88.7	28.0	99.6				
3.5	90.8	28.5	100.6				
4.0	89.5	29.0	99.6				
4.5	89.0	29.5	99.2				
5.0	87.8	30.0	99.5				
5.5	89.4	30.5	99.3				
6.0	87.2	31.0	99.3				
6.5	85.4	31.5	99.2				
7.0	89.0	32.0	99.3				
7.5	88.5	32.5	98.9				
8.0	91.8	33.0	98.3				
8.5	92.9	33.5	96.9				
9.0	91.6	34.0	98.2				
9.5	91.0	34.5	97.7				
10.0	92.6	35.0	95.2				
10.5	94.5	35.5	95.5				
11.0	94.5	36.0	96.4				
11.5	95.7	36.5	94.3				
12.0	93.2	37.0	95.2				
12.5	94.3	37.5	95.4				
13.0	95.9	38.0	93.5				
13.5	96.2	38.5	93.8				
14.0	97.2	39.0	93.5				
14.5	96.8	39.5	92.3				
15.0	97.0	40.0	90.3				
15.5	97.3	40.5	90.3				
16.0	96.6	41.0	90.8				
16.5	99.0	41.5	91.9				
17.0	97.8	42.0	91.2				
17.5	100.2	42.5	88.9				
18.0	98.8	43.0	89.3				
18.5	98.2	43.5	89.0				
19.0	99.1	44.0	87.6				
19.5	100.6	44.5	86.8				
20.0	99.3	45.0	85.5				
20.5	101.0	45.5	89.9				
21.0	99.4	46.0	85.3				
21.5	99.7	46.5	83.2				
22.0	99.6	47.0	79.6				
22.5	100.3	47.5	81.0				
23.0	100.1	48.0	73.6				
23.5	100.4	48.5	75.4				
24.0	99.3	49.0	70.2				
24.5	99.0						
25.0	99.5						

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## MAN-AcouSTICS #12

## DC-8 TAKEOFF

TIME	PEAK SPL
0.5	65.0
1.0	69.6
1.5	62.7
2.0	69.6
2.5	68.9
3.0	72.8
3.5	74.2
4.0	74.8
4.5	77.8
5.0	77.4
5.5	80.8
6.0	79.6
6.5	81.6
7.0	86.9
7.5	89.5
8.0	91.7
8.5	92.7
9.0	91.6
9.5	92.9
10.0	92.1
10.5	92.4
11.0	92.7
11.5	92.4
12.0	91.6
12.5	92.8
13.0	93.2
13.5	91.5
14.0	89.9
14.5	93.6
15.0	95.0
15.5	94.3
16.0	94.1
16.5	94.0
17.0	91.0
17.5	94.5
18.0	95.7
18.5	94.7
19.0	95.1
19.5	96.3
20.0	95.1
20.5	94.9
21.0	95.8
21.5	97.9
22.0	96.2
22.5	98.4
23.0	98.3
23.5	98.8
24.0	99.6
24.5	99.1
25.0	98.5

TIME	PEAK SPL
25.5	101.2
26.0	96.6
26.5	97.8
27.0	98.1
27.5	97.7
28.0	97.9
28.5	96.7
29.0	98.8
29.5	97.3
30.0	98.6
30.5	99.6
31.0	97.8
31.5	100.3
32.0	100.8
32.5	100.5
33.0	98.8
33.5	97.7
34.0	100.1
34.5	98.5
35.0	99.3
35.5	98.1
36.0	100.2
36.5	100.4
37.0	100.3
37.5	99.3
38.0	97.9
38.5	98.5
39.0	99.0
39.5	99.5
40.0	99.5
40.5	98.9
41.0	100.1
41.5	102.0
42.0	99.4
42.5	100.3
43.0	97.9
43.5	98.9
44.0	101.3
44.5	99.1
45.0	97.2
45.5	99.9
46.0	100.1
46.5	96.9
47.0	98.1
47.5	97.2
48.0	94.3
48.5	97.1
49.0	98.9
49.5	97.6
50.0	96.0

TIME	PEAK SPL
50.5	94.4
51.0	97.5
51.5	94.0
52.0	93.2

TIME	PEAK SPL
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## MAN-ACOUSTICS #10: BOEING 747 APPROACH

TIME	PEAK SPL	TIME	PEAK SPL	TIME	PEAK SPL	TIME	PEAK SPL
0.5	63.5	25.5	100.8				
1.0	65.5	26.0	100.8				
1.5	71.7	26.5	101.2				
2.0	73.3	27.0	101.6				
2.5	76.3	27.5	100.7				
3.0	76.9	28.0	99.9				
3.5	78.8	28.5	98.5				
4.0	82.5	29.0	99.9				
4.5	85.1	29.5	96.7				
5.0	91.7	30.0	97.9				
5.5	94.6	30.5	96.2				
6.0	94.6	31.0	95.3				
6.5	92.4	31.5	94.3				
7.0	93.5	32.0	93.4				
7.5	95.6	32.5	93.1				
8.0	95.4	33.0	92.8				
8.5	95.1	33.5	96.3				
9.0	96.0	34.0	94.1				
9.5	94.9	34.5	92.7				
10.0	96.1	35.0	92.2				
10.5	97.1	35.5	93.8				
11.0	95.1	36.0	91.8				
11.5	95.4	36.5	90.0				
12.0	98.6	37.0	89.8				
12.5	100.2	37.5	89.8				
13.0	99.0	38.0	90.4				
13.5	98.6	38.5	90.1				
14.0	98.8	39.0	90.1				
14.5	100.4	39.5	90.6				
15.0	100.6	40.0	89.8				
15.5	99.9	40.5	90.2				
16.0	100.3	41.0	88.6				
16.5	100.3	41.5	89.0				
17.0	100.5	42.0	88.5				
17.5	101.1	42.5	89.8				
18.0	100.6	43.0	89.2				
18.5	99.9	43.5	90.3				
19.0	100.7	44.0	89.5				
19.5	100.6	44.5	86.4				
20.0	101.2	45.0	82.5				
20.5	100.4	45.5	77.4				
21.0	101.7	46.0	80.6				
21.5	101.3						
22.0	101.9						
22.5	103.3						
23.0	102.5						
23.5	102.1						
24.0	102.3						
24.5	102.2						
25.0	101.7						

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## MAN-Acoustics #11: DC-8 APPROACH

TIME	PEAK SPL	TIME	PEAK SPL	TIME	PEAK SPL	TIME	PEAK SPL
0.5	74.7	25.5	90.7				
1.0	80.6	26.0	91.5				
1.5	84.5	26.5	91.9				
2.0	88.6	27.0	90.8				
2.5	91.8	27.5	91.8				
3.0	92.7	28.0	90.0				
3.5	95.3	28.5	88.9				
4.0	93.8	29.0	92.1				
4.5	92.2						
5.0	94.3						
5.5	95.2						
6.0	94.0						
6.5	93.9						
7.0	96.7						
7.5	95.8						
8.0	98.1						
8.5	98.3						
9.0	99.2						
9.5	99.8						
10.0	99.4						
10.5	100.3						
11.0	98.6						
11.5	98.2						
12.0	99.3						
12.5	100.0						
13.0	100.5						
13.5	100.8						
14.0	101.2						
14.5	101.3						
15.0	101.3						
15.5	101.0						
16.0	102.4						
16.5	101.6						
17.0	101.5						
17.5	100.1						
18.0	97.9						
18.5	98.9						
19.0	97.7						
19.5	96.5						
20.0	96.7						
20.5	96.2						
21.0	95.6						
21.5	94.3						
22.0	94.0						
22.5	93.1						
23.0	91.1						
23.5	92.4						
24.0	91.2						
24.5	91.5						
25.0	90.3						

## MAN-ACOUSTICS #12. BRITTEN-NORMAN ISLANDER-TAKEOFF SMALL RECIP

TIME	PEAK SPL	TIME	PEAK SPL	TIME	PEAK SPL	TIME	PEAK SPL
0.0	86.9						
1.0	89.2						
1.5	90.2						
2.0	88.7						
2.5	89.8						
3.0	90.7						
3.5	91.9						
4.0	92.9						
4.5	95.6						
5.0	96.1						
5.5	94.3						
6.0	96.1						
6.5	98.1						
7.0	98.8						
7.5	99.7						
8.0	99.9						
8.5	99.7						
9.0	100.6						
9.5	97.2						
10.0	95.3						
10.5	95.2						
11.0	97.6						
11.5	95.4						
12.0	97.5						
12.5	96.4						
13.0	97.6						
13.5	95.4						
14.0	93.4						
14.5	96.1						
15.0	94.0						
15.5	96.6						
16.0	93.2						
16.5	93.8						
17.0	94.0						
17.5	96.3						
18.0	93.3						
18.5	90.8						
19.0	90.1						
19.5	89.5						
20.0	87.1						
20.5	87.0						
21.0	87.1						

## MAN-Acoustics #113: CONVAIR 640 - TAKEOFF MEDIUM TURBOPROP

TIME	PEAK SPL	TIME	PEAK SPL	TIME	PEAK SPL	TIME	PEAK SPL
0.5	76.5						
1.0	79.8						
1.5	87.4						
2.0	90.6						
2.5	90.9						
3.0	92.5						
3.5	92.1						
4.0	89.7						
4.5	91.7						
5.0	94.3						
5.5	92.8						
6.0	93.2						
6.5	93.6						
7.0	94.6						
7.5	94.4						
8.0	94.7						
8.5	95.1						
9.0	94.9						
9.5	94.3						
10.0	95.0						
10.5	95.6						
11.0	95.0						
11.5	96.0						
12.0	94.4						
12.5	94.0						
13.0	94.0						
13.5	95.1						
14.0	93.7						
14.5	94.0						
15.0	93.7						
15.5	92.8						
16.0	91.8						
16.5	90.6						
17.0	90.8						
17.5	93.9						
18.0	91.0						
18.5	90.8						
19.0	91.2						
19.5	90.8						
20.0	89.2						
20.5	89.2						
21.0	87.7						
21.5	87.5						
22.0	86.6						
22.5	87.7						
23.0	87.4						
23.5	87.2						

BEST AVAILABLE COPY

## MAN-ACOUSTICS #14: CHINOOK CH 47-A - LEVEL FLYOVER AT 500 FT.

TIME	PEAK SPL	TIME	PEAK SPL	TIME	PEAK SPL	TIME	PEAK SPL
0.5	88.8	25.5	94.9				
1.0	91.6	26.0	93.9				
1.5	94.3	26.5	94.1				
2.0	95.9	27.0	93.4				
2.5	98.1	27.5	93.9				
3.0	98.7	28.0	95.9				
3.5	99.7	28.5	94.6				
4.0	98.6	29.0	93.2				
4.5	96.5	29.5	92.1				
5.0	92.2	30.0	90.6				
5.5	90.5	30.5	90.9				
6.0	90.4	31.0	89.4				
6.5	91.5	31.5	91.3				
7.0	90.6	32.0	90.0				
7.5	90.5	32.5	90.0				
8.0	88.1	33.0	89.5				
8.5	88.4	33.5	89.3				
9.0	87.7	34.0	89.4				
9.5	87.9	34.5	89.1				
10.0	90.1	35.0	90.0				
10.5	91.9	35.5	89.1				
11.0	92.0	36.0	88.6				
11.5	92.1	36.5	86.9				
12.0	90.6	37.0	88.4				
12.5	93.8	37.5	87.3				
13.0	100.4	38.0	87.6				
13.5	97.2	38.5	87.6				
14.0	93.1	39.0	87.4				
14.5	92.9	39.5	87.2				
15.0	92.3	40.0	87.9				
15.5	94.3						
16.0	93.0						
16.5	91.7						
17.0	94.4						
17.5	96.7						
18.0	98.9						
18.5	99.2						
19.0	97.3						
19.5	98.2						
20.0	100.4						
20.5	100.1						
21.0	99.2						
21.5	101.6						
22.0	103.9						
22.5	100.0						
23.0	100.3						
23.5	98.2						
24.0	96.0						
24.5	94.3						
25.0	94.8						



## MAN-ACOUSTICS #115. CHINOOK CH 47-A - ROUTINE APPROACH

TIME	PEAK SPL	TIME	PEAK SPL	TIME	PEAK SPL	TIME	PEAK SPL
0.5	89.9	25.5	99.2	50.5	95.6		
1.0	92.5	26.0	98.2	51.0	95.7		
1.5	90.3	26.5	98.2	51.5	98.2		
2.0	91.2	27.0	98.5	52.0	94.4		
2.5	89.0	27.5	97.6				
3.0	88.7	28.0	98.6				
3.5	87.7	28.5	99.1				
4.0	87.5	29.0	97.5				
4.5	86.4	29.5	97.0				
5.0	86.4	30.0	96.3				
5.5	86.2	30.5	97.1				
6.0	86.0	31.0	97.0				
6.5	86.5	31.5	97.0				
7.0	86.7	32.0	96.3				
7.5	86.1	32.5	96.1				
8.0	88.5	33.0	96.3				
8.5	90.1	33.5	95.9				
9.0	94.9	34.0	95.6				
9.5	91.7	34.5	96.5				
10.0	88.8	35.0	96.1				
10.5	90.0	35.5	97.4				
11.0	88.5	36.0	96.5				
11.5	87.5	36.5	97.1				
12.0	90.4	37.0	97.9				
12.5	92.0	37.5	98.4				
13.0	92.7	38.0	98.7				
13.5	91.6	38.5	101.9				
14.0	94.6	39.0	98.2				
14.5	93.0	39.5	98.3				
15.0	87.9	40.0	98.9				
15.5	93.2	40.5	99.4				
16.0	92.7	41.0	100.5				
16.5	93.0	41.5	98.6				
17.0	91.6	42.0	98.9				
17.5	93.4	42.5	101.4				
18.0	95.1	43.0	103.0				
18.5	94.3	43.5	99.0				
19.0	94.7	44.0	99.8				
19.5	92.2	44.5	99.9				
20.0	92.5	45.0	99.0				
20.5	93.2	45.5	97.6				
21.0	94.6	46.0	97.6				
21.5	92.9	46.5	96.1				
22.0	94.8	47.0	96.8				
22.5	95.3	47.5	96.3				
23.0	93.3	48.0	96.0				
23.5	91.7	48.5	97.6				
24.0	94.3	49.0	97.6				
24.5	98.9	49.5	97.9				
25.0	98.3	50.0	97.1				

MAN-ACOUSTICS #16: CHINOOK CH 47 A - ROUTINE TAKEOFF

TIME	PEAK SPL	TIME	PEAK SPL	TIME	PEAK SPL	TIME	PEAK SPL
0.5	85.2	25.5	89.8				
1.0	82.9	26.0	89.8				
1.5	85.0	26.5	88.7				
2.0	85.2	27.0	87.3				
2.5	86.9	27.5	86.6				
3.0	87.7	28.0	86.2				
3.5	86.4	28.5	84.5				
4.0	89.2	29.0	85.3				
4.5	99.2	29.5	86.2				
5.0	90.4	30.0	85.4				
5.5	84.0	30.5	81.8				
6.0	82.1						
6.5	83.7						
7.0	83.1						
7.5	85.9						
8.0	86.5						
8.5	86.7						
9.0	85.5						
9.5	87.9						
10.0	87.9						
10.5	87.9						
11.0	88.7						
11.5	86.8						
12.0	89.3						
12.5	87.4						
13.0	88.6						
13.5	89.2						
14.0	88.6						
14.5	89.2						
15.0	91.7						
15.5	90.1						
16.0	90.4						
16.5	91.4						
17.0	92.0						
17.5	93.4						
18.0	93.2						
18.5	94.1						
19.0	97.2						
19.5	103.6						
20.0	99.3						
20.5	98.2						
21.0	97.2						
21.5	98.6						
22.0	93.2						
22.5	92.7						
23.0	90.6						
23.5	91.3						
24.0	91.7						
24.5	91.5						
25.0	92.1						

## MAN ACUSTICS #17: BELL UH-1H (HOEY) - LEVEL FLYOVER AT 500 FT.

TIME	PEAK SPL	TIME	PEAK SPL	TIME	PEAK SPL	TIME	PEAK SPL
0.5	88.7	25.5	98.3				
1.0	88.1	26.0	98.8				
1.5	89.4	26.5	98.0				
2.0	90.5	27.0	95.4				
2.5	92.0	27.5	94.3				
3.0	92.0	28.0	97.3				
3.5	92.7	28.5	103.3				
4.0	91.6	29.0	103.3				
4.5	90.1	29.5	101.3				
5.0	91.6	30.0	103.1				
5.5	91.7	30.5	99.5				
6.0	92.7	31.0	101.3				
6.5	95.8	31.5	95.6				
7.0	98.1	32.0	100.8				
7.5	96.7	32.5	95.6				
8.0	95.2	33.0	95.4				
8.5	94.8	33.5	94.7				
9.0	92.7	34.0	93.6				
9.5	93.5	34.5	92.0				
10.0	95.6	35.0	91.7				
10.5	97.3	35.5	91.7				
11.0	98.4	36.0	95.0				
11.5	98.6	36.5	91.9				
12.0	98.2	37.0	90.8				
12.5	95.1	37.5	90.3				
13.0	93.7	38.0	88.5				
13.5	95.1	38.5	86.8				
14.0	95.7	39.0	89.9				
14.5	95.4	39.5	89.0				
15.0	97.2	40.0	88.9				
15.5	96.5	40.5	90.1				
16.0	97.8	41.0	85.8				
16.5	99.2	41.5	83.6				
17.0	99.0	42.0	85.8				
17.5	99.7	42.5	91.4				
18.0	97.8	43.0	82.4				
18.5	98.6	43.5	80.5				
19.0	95.2	44.0	74.0				
19.5	95.6						
20.0	98.0						
20.5	97.3						
21.0	95.6						
21.5	94.8						
22.0	95.0						
22.5	94.3						
23.0	93.4						
23.5	93.3						
24.0	92.2						
24.5	95.3						
25.0	99.3						

## MAN-ACOUSTICS #118: KIOWA DH-58 - LEVEL FLYOVER AT 500 FT.

TIME	PEAK SPL	TIME	PEAK SPL	TIME	PEAK SPL	TIME	PEAK SPL
0.5	79.8	25.5	102.5	50.5	85.0		
1.0	79.4	26.0	102.1	51.0	83.3		
1.5	83.5	26.5	101.5	51.5	79.7		
2.0	91.0	27.0	99.6	52.0	74.5		
2.5	93.0	27.5	100.5				
3.0	91.8	28.0	101.0				
3.5	91.4	28.5	102.6				
4.0	90.2	29.0	102.0				
4.5	90.2	29.5	100.2				
5.0	91.1	30.0	100.8				
5.5	91.1	30.5	101.7				
6.0	90.1	31.0	101.0				
6.5	90.7	31.5	101.9				
7.0	88.8	32.0	102.5				
7.5	90.0	32.5	101.6				
8.0	88.7	33.0	100.7				
8.5	87.7	33.5	99.9				
9.0	87.0	34.0	99.7				
9.5	86.4	34.5	99.4				
10.0	87.6	35.0	99.1				
10.5	87.8	35.5	100.6				
11.0	89.0	36.0	99.8				
11.5	88.5	36.5	97.2				
12.0	90.2	37.0	99.4				
12.5	89.0	37.5	97.2				
13.0	90.2	38.0	98.1				
13.5	91.5	38.5	97.3				
14.0	93.2	39.0	97.8				
14.5	92.6	39.5	96.5				
15.0	94.3	40.0	95.6				
15.5	93.0	40.5	95.1				
16.0	91.4	41.0	94.3				
16.5	88.5	41.5	93.2				
17.0	93.8	42.0	95.4				
17.5	95.0	42.5	94.9				
18.0	95.6	43.0	92.3				
18.5	97.1	43.5	93.4				
19.0	97.8	44.0	93.3				
19.5	97.9	44.5	94.0				
20.0	96.7	45.0	94.7				
20.5	98.6	45.5	91.5				
21.0	98.6	46.0	90.2				
21.5	97.5	46.5	91.1				
22.0	98.5	47.0	90.6				
22.5	99.5	47.5	92.6				
23.0	100.3	48.0	93.4				
23.5	99.7	48.5	93.0				
24.0	100.4	49.0	89.4				
24.5	101.6	49.5	89.1				
25.0	101.8	50.0	83.2				

## MAN ACOUSTICS #17. KIONA OH-58 - ROUTINE APPROACH

TIME	PEAK SPL	TIME	PEAK SPL	TIME	PEAK SPL	TIME	PEAK SPL
0.5	83.3	25.5	93.7	50.5	91.4		
1.0	85.1	26.0	95.2	51.0	92.0		
1.5	83.9	26.5	95.1	51.5	90.1		
2.0	88.0	27.0	96.1	52.0	92.1		
2.5	89.6	27.5	96.3	52.5	90.6		
3.0	90.5	28.0	97.4				
3.5	87.2	28.5	96.3				
4.0	86.0	29.0	98.0				
4.5	88.4	29.5	100.2				
5.0	87.4	30.0	97.8				
5.5	84.7	30.5	97.5				
6.0	84.1	31.0	96.5				
6.5	85.6	31.5	101.6				
7.0	83.9	32.0	99.8				
7.5	85.3	32.5	97.9				
8.0	85.1	33.0	96.9				
8.5	87.8	33.5	96.5				
9.0	88.0	34.0	97.6				
9.5	86.0	34.5	98.1				
10.0	85.2	35.0	97.7				
10.5	84.2	35.5	98.0				
11.0	82.3	36.0	98.9				
11.5	84.3	36.5	100.1				
12.0	84.8	37.0	99.1				
12.5	84.5	37.5	100.0				
13.0	85.5	38.0	99.8				
13.5	89.6	38.5	99.9				
14.0	88.3	39.0	99.8				
14.5	88.2	39.5	100.5				
15.0	91.3	40.0	100.1				
15.5	90.7	40.5	99.1				
16.0	89.3	41.0	97.1				
16.5	89.7	41.5	97.6				
17.0	88.8	42.0	97.2				
17.5	87.8	42.5	97.8				
18.0	86.4	43.0	98.5				
18.5	87.0	43.5	98.0				
19.0	86.0	44.0	97.9				
19.5	86.5	44.5	95.8				
20.0	90.3	45.0	95.5				
20.5	89.7	45.5	95.1				
21.0	88.6	46.0	94.8				
21.5	90.1	46.5	92.9				
22.0	92.8	47.0	92.9				
22.5	92.1	47.5	93.1				
23.0	91.3	48.0	92.4				
23.5	94.8	48.5	94.0				
24.0	93.7	49.0	93.1				
24.5	94.3	49.5	90.8				
25.0	95.1	50.0	90.9				

## MAN-ACOUSTICS #20: SEA KNIGHT - LEVEL FLYOVER AT 500 FT.

TIME	PEAK SPL	TIME	PEAK SPL	TIME	PEAK SPL	TIME	PEAK SPL
0.5	83.5	25.5	96.2				
1.0	84.0	26.0	96.5				
1.5	87.4	26.5	96.5				
2.0	88.3	27.0	95.2				
2.5	87.4	27.5	97.4				
3.0	90.1	28.0	96.0				
3.5	89.8	28.5	95.5				
4.0	86.4	29.0	95.8				
4.5	87.2	29.5	92.2				
5.0	85.2	30.0	92.6				
5.5	87.5	30.5	94.2				
6.0	90.5	31.0	92.7				
6.5	91.7	31.5	94.5				
7.0	90.6	32.0	92.6				
7.5	90.3	32.5	92.9				
8.0	90.5	33.0	99.4				
8.5	89.0	33.5	97.2				
9.0	91.4	34.0	90.5				
9.5	90.2	34.5	90.5				
10.0	88.4	35.0	93.5				
10.5	91.8	35.5	93.9				
11.0	99.7	36.0	94.7				
11.5	93.5	36.5	95.6				
12.0	92.7	37.0	92.2				
12.5	93.5	37.5	95.1				
13.0	91.3	38.0	93.3				
13.5	87.2	38.5	91.4				
14.0	91.7	39.0	89.8				
14.5	94.1	39.5	90.2				
15.0	93.1	40.0	87.5				
15.5	96.2	40.5	90.2				
16.0	91.6	41.0	84.4				
16.5	94.8	41.5	89.8				
17.0	98.4	42.0	90.5				
17.5	101.2	42.5	89.5				
18.0	100.4	43.0	89.9				
18.5	99.7	43.5	91.8				
19.0	105.1	44.0	89.8				
19.5	102.0	44.5	89.9				
20.0	103.5						
20.5	102.6						
21.0	103.0						
21.5	104.3						
22.0	104.0						
22.5	105.3						
23.0	105.5						
23.5	105.0						
24.0	101.2						
24.5	98.1						
25.0	98.4						



MAN-ACOUSTICS #21: SEA KNIGHT - SHALLOW TURN OPERATION

TIME	PEAK SPL	TIME	PEAK SPL	TIME	PEAK SPL	TIME	PEAK SPL
0.5	74.3	25.5	102.7	50.5	102.3		
1.0	80.1	26.0	102.3	51.0	103.6		
1.5	81.7	26.5	100.9	51.5	103.2		
2.0	85.9	27.0	101.2	52.0	101.6		
2.5	85.8	27.5	102.5				
3.0	87.0	28.0	101.0				
3.5	91.4	28.5	102.0				
4.0	93.0	29.0	102.2				
4.5	93.3	29.5	101.0				
5.0	99.3	30.0	102.2				
5.5	98.8	30.5	103.9				
6.0	103.7	31.0	104.4				
6.5	104.9	31.5	102.4				
7.0	103.6	32.0	102.6				
7.5	104.6	32.5	102.0				
8.0	106.4	33.0	107.0				
8.5	106.5	33.5	103.1				
9.0	104.3	34.0	105.5				
9.5	108.5	34.5	103.7				
10.0	107.6	35.0	102.7				
10.5	107.0	35.5	101.5				
11.0	106.8	36.0	103.4				
11.5	106.7	36.5	101.4				
12.0	107.7	37.0	102.3				
12.5	107.3	37.5	102.1				
13.0	105.7	38.0	102.1				
13.5	105.7	38.5	102.7				
14.0	104.1	39.0	101.8				
14.5	102.2	39.5	103.8				
15.0	104.1	40.0	102.0				
15.5	102.7	40.5	101.6				
16.0	102.5	41.0	102.5				
16.5	103.1	41.5	104.0				
17.0	106.6	42.0	101.9				
17.5	103.7	42.5	105.2				
18.0	102.2	43.0	104.8				
18.5	105.7	43.5	103.4				
19.0	98.0	44.0	106.1				
19.5	102.3	44.5	104.3				
20.0	98.4	45.0	103.5				
20.5	100.2	45.5	103.7				
21.0	104.8	46.0	102.7				
21.5	103.1	46.5	102.6				
22.0	103.3	47.0	105.4				
22.5	103.5	47.5	102.3				
23.0	102.5	48.0	103.5				
23.5	99.8	48.5	104.4				
24.0	104.7	49.0	103.5				
24.5	101.9	49.5	103.1				
25.0	103.6	50.0	104.5				

## MAN-ACOUSTICS #122: HUGHES 300 - STEEP TURN OPERATION

TIME	PEAK SPL	TIME	PEAK SPL	TIME	PEAK SPL	TIME	PEAK SPL
0.5	86.6	25.5	103.7	50.5	104.5	75.5	99.9
1.0	90.9	26.0	104.3	51.0	103.8	76.0	98.7
1.5	92.6	26.5	103.2	51.5	104.8	76.5	101.5
2.0	92.4	27.0	103.9	52.0	104.3	77.0	100.4
2.5	92.5	27.5	103.4	52.5	104.5	77.5	96.2
3.0	92.6	28.0	101.6	53.0	105.1	78.0	98.1
3.5	90.9	28.5	103.5	53.5	104.6	78.5	93.6
4.0	90.3	29.0	103.6	54.0	105.1	79.0	94.7
4.5	93.7	29.5	103.8	54.5	104.3	79.5	93.6
5.0	93.2	30.0	103.8	55.0	103.4	80.0	91.2
5.5	92.7	30.5	104.6	55.5	104.0		
6.0	93.6	31.0	105.0	56.0	105.2		
6.5	93.9	31.5	103.9	56.5	105.1		
7.0	95.0	32.0	103.1	57.0	103.8		
7.5	93.7	32.5	104.8	57.5	104.6		
8.0	94.5	33.0	103.2	58.0	102.3		
8.5	95.2	33.5	104.8	58.5	101.3		
9.0	93.0	34.0	103.6	59.0	101.1		
9.5	93.4	34.5	104.0	59.5	103.1		
10.0	94.8	35.0	105.1	60.0	102.6		
10.5	95.4	35.5	103.4	60.5	101.8		
11.0	96.1	36.0	103.8	61.0	101.7		
11.5	95.8	36.5	103.6	61.5	103.0		
12.0	94.4	37.0	103.2	62.0	102.4		
12.5	95.4	37.5	103.5	62.5	100.7		
13.0	95.4	38.0	102.5	63.0	97.6		
13.5	95.1	38.5	102.7	63.5	94.9		
14.0	95.7	39.0	104.1	64.0	100.3		
14.5	96.4	39.5	103.7	64.5	102.0		
15.0	96.4	40.0	103.0	65.0	100.4		
15.5	96.2	40.5	103.3	65.5	102.1		
16.0	96.6	41.0	103.5	66.0	101.2		
16.5	97.0	41.5	103.1	66.5	98.8		
17.0	98.2	42.0	102.8	67.0	97.9		
17.5	97.8	42.5	104.1	67.5	96.1		
18.0	98.7	43.0	103.1	68.0	97.0		
18.5	101.1	43.5	105.0	68.5	102.1		
19.0	101.9	44.0	103.3	69.0	103.6		
19.5	102.8	44.5	102.2	69.5	101.8		
20.0	103.5	45.0	101.5	70.0	100.0		
20.5	102.6	45.5	102.3	70.5	97.7		
21.0	102.9	46.0	102.2	71.0	98.4		
21.5	103.8	46.5	104.3	71.5	102.3		
22.0	103.3	47.0	103.5	72.0	101.4		
22.5	104.3	47.5	102.8	72.5	99.6		
23.0	102.6	48.0	103.6	73.0	97.7		
23.5	102.8	48.5	102.5	73.5	96.8		
24.0	103.6	49.0	102.8	74.0	95.7		
24.5	102.7	49.5	102.8	74.5	97.2		
25.0	103.4	50.0	102.7	75.0	97.8		

MAN ACOUSTICS #120: BELL UH-1H (HUEY - ROUTINE TAKEOFF

TIME	PEAK SPL	TIME	PEAK SPL	TIME	PEAK SPL	TIME	PEAK SPL
0.5	89.8	25.5	84.5				
1.0	92.5	26.0	82.8				
1.5	93.4	26.5	82.6				
2.0	89.7	27.0	84.1				
2.5	89.0						
3.0	90.2						
3.5	86.9						
4.0	84.0						
4.5	89.3						
5.0	85.4						
5.5	86.1						
6.0	86.4						
6.5	88.6						
7.0	86.6						
7.5	87.0						
8.0	85.6						
8.5	88.8						
9.0	88.3						
9.5	89.8						
10.0	95.1						
10.5	98.0						
11.0	97.4						
11.5	94.6						
12.0	92.0						
12.5	90.1						
13.0	92.4						
13.5	96.8						
14.0	97.4						
14.5	99.0						
15.0	94.9						
15.5	95.3						
16.0	100.4						
16.5	99.5						
17.0	102.4						
17.5	100.1						
18.0	101.2						
18.5	100.9						
19.0	102.5						
19.5	99.4						
20.0	97.9						
20.5	100.3						
21.0	98.5						
21.5	96.1						
22.0	92.7						
22.5	96.2						
23.0	89.0						
23.5	95.2						
24.0	89.0						
24.5	87.5						
25.0	85.4						

## MAN ACOUSTICS #24: HUGHES 300 - LEVEL FLYOVER AT 500 FT.

TIME	PEAK SPL	TIME	PEAK SPL	TIME	PEAK SPL	TIME	PEAK SPL
0.5	83.5	25.5	100.0	50.5	99.1		
1.0	86.7	26.0	101.0	51.0	98.2		
1.5	89.9	26.5	102.2	51.5	98.1		
2.0	89.3	27.0	101.3	52.0	96.5		
2.5	91.0	27.5	101.5	52.5	97.9		
3.0	89.3	28.0	101.7	53.0	95.3		
3.5	89.9	28.5	102.2	53.5	94.5		
4.0	91.4	29.0	101.4	54.0	94.0		
4.5	89.2	29.5	101.0	54.5	97.2		
5.0	93.4	30.0	103.6	55.0	98.9		
5.5	94.5	30.5	102.0	55.5	98.6		
6.0	92.6	31.0	104.4	56.0	97.1		
6.5	93.1	31.5	105.6	56.5	98.8		
7.0	93.7	32.0	104.0	57.0	100.6		
7.5	91.6	32.5	103.9	57.5	97.2		
8.0	92.6	33.0	103.6	58.0	94.6		
8.5	92.9	33.5	102.4	58.5	96.5		
9.0	91.5	34.0	105.1	59.0	97.8		
9.5	92.1	34.5	103.4	59.5	95.8		
10.0	95.1	35.0	104.3	60.0	96.9		
10.5	95.4	35.5	104.6	60.5	93.8		
11.0	95.3	36.0	101.6	61.0	94.0		
11.5	95.2	36.5	102.7	61.5	96.0		
12.0	95.6	37.0	103.4	62.0	94.5		
12.5	93.2	37.5	102.1	62.5	95.2		
13.0	93.8	38.0	102.9	63.0	95.5		
13.5	94.5	38.5	101.7	63.5	94.6		
14.0	94.3	39.0	102.1	64.0	95.5		
14.5	94.1	39.5	101.4	64.5	94.0		
15.0	93.3	40.0	101.4	65.0	93.7		
15.5	93.8	40.5	99.6	65.5	92.6		
16.0	92.3	41.0	99.4	66.0	93.1		
16.5	94.3	41.5	101.5	66.5	93.9		
17.0	93.9	42.0	100.7	67.0	96.9		
17.5	93.4	42.5	102.5	67.5	96.9		
18.0	94.4	43.0	103.1	68.0	96.2		
18.5	98.3	43.5	100.5	68.5	96.0		
19.0	96.2	44.0	99.9	69.0	95.8		
19.5	93.2	44.5	99.3	69.5	98.0		
20.0	95.9	45.0	99.4	70.0	98.0		
20.5	97.7	45.5	98.3	70.5	96.9		
21.0	97.7	46.0	99.0	71.0	94.2		
21.5	98.7	46.5	100.7	71.5	91.2		
22.0	99.6	47.0	98.8	72.0	91.9		
22.5	98.0	47.5	99.2	72.5	89.9		
23.0	98.1	48.0	99.2	73.0	90.3		
23.5	101.5	48.5	99.8				
24.0	101.4	49.0	101.2				
24.5	103.5	49.5	102.9				
25.0	100.1	50.0	101.8				

## MAN ACOUSTICS, EVENT #1

T	PNL	P.T.	PNLT	QA	A-LEV	D-LEV	N-LEV	BAND #
0.0	54.2	1.6	55.8	56.1	45.2	53.3	60.3	0.2
0.5	54.6	1.1	55.7	58.1	45.1	53.6	60.6	0.2
1.0	56.6	1.1	57.7	57.8	47.3	54.6	61.6	0.2
1.5	70.6	3.0	73.6	65.2	59.5	65.1	72.1	1.1
2.0	87.1	3.7	90.8	81.2	75.9	81.0	88.0	1.1
2.5	92.3	3.4	96.2	87.1	81.5	86.7	93.7	1.1
3.0	95.7	3.5	99.2	89.7	84.5	89.7	96.7	1.1
3.5	97.0	3.3	100.3	91.0	85.6	90.9	97.9	1.1
4.0	97.5	3.4	100.9	91.3	86.3	91.6	98.6	1.1
4.5	97.8	3.3	101.1	91.6	86.5	91.8	98.8	0.4
5.0	97.9	3.3	101.2	91.6	86.6	92.0	99.0	0.4
5.5	98.0	3.3	101.3	91.7	86.7	92.1	99.1	1.1
6.0	97.7	3.3	101.2	91.6	86.7	92.1	99.1	1.1
6.5	98.1	3.3	101.4	91.8	86.7	92.1	99.1	0.4
7.0	98.0	3.3	101.3	91.6	86.7	92.2	99.2	0.4
7.5	98.1	3.3	101.4	91.8	86.8	92.1	99.1	0.4
8.0	98.0	3.4	101.4	91.6	86.7	92.1	99.1	1.1
8.5	98.0	3.4	101.4	91.7	86.7	92.1	99.1	1.1
9.0	98.1	3.3	101.4	91.7	86.8	92.2	99.2	0.4
9.5	98.2	3.3	101.5	91.8	86.8	92.2	99.2	0.4
10.0	98.1	3.3	101.4	91.7	86.8	92.2	99.2	0.4
10.5	98.1	3.4	101.5	91.8	86.8	92.2	99.2	1.1
11.0	98.0	3.3	101.3	91.7	86.8	92.1	99.1	0.4
11.5	98.2	3.3	101.5	91.8	86.9	92.2	99.2	0.4
12.0	98.1	3.3	101.4	91.8	86.9	92.2	99.2	0.4
12.5	98.0	3.3	101.3	91.7	86.8	92.1	99.1	0.4
13.0	98.0	3.3	101.3	91.6	86.7	92.1	99.1	0.4
13.5	97.7	3.4	101.1	91.4	86.5	91.9	98.9	1.1
14.0	96.8	3.3	100.1	90.6	85.6	91.0	98.0	0.4
14.5	95.0	3.3	98.3	88.6	83.8	89.2	96.2	0.4
15.0	92.6	3.3	95.9	86.2	81.5	86.9	93.9	0.4
15.5	90.4	3.3	93.7	84.0	79.3	84.7	91.7	0.4
16.0	88.0	3.1	91.1	81.6	76.9	82.4	89.4	1.1
16.5	85.7	3.2	88.9	79.3	74.6	80.1	87.1	1.1
17.0	83.2	3.1	86.3	76.9	72.3	77.7	84.7	1.1
17.5	80.5	3.1	83.6	74.1	69.9	75.2	82.2	1.1
18.0	78.3	3.1	81.4	71.9	67.6	73.0	80.0	1.1

MAXIMUM VALUES IN BANDS, PNLC = 98.3

50	63	80	100	125	160	200	250	315	400
52.2	55.2	64.1	83.8	67.2	63.3	85.2	74.2	86.9	67.2
83.0	79.0	75.1	72.7	74.6	75.4	75.6	73.8	69.1	62.7
54.2	46.5	43.2	43.0						

SPECTRUM FOR MAX PNLT

50.9	53.5	64.1	83.7	66.9	63.2	85.1	74.2	86.9	67.0
82.9	78.8	74.6	72.6	74.3	74.7	75.5	73.3	68.7	62.6
54.0	46.4	43.2	42.7						

	TIME	MAX	D10	I-10	D20	I-20	D/15+M	D/30+M
P.T.	2.0	3.7						
PNL	9.5	98.2	14.0	108.7	16.5	108.7	97.9	95.6
PNLT	9.5	101.5	14.0	112.0	16.5	112.1	101.2	98.9
A-LEV	11.5	86.9	14.0	97.4	16.5	97.5	86.6	84.3
N-LEV	7.0	99.2	14.5	109.8	16.5	109.8	99.1	96.6

A-74

EPNL = 102.0



## MAN ACOUSTICS, EVENT #2

T	PNL	P.T.	PNLT	DA	A-LEV	D-LEV	N-LEV	BAND #
0.0	61.4	1.4	62.8	53.4	48.5	56.5	63.5	0.2
0.5	61.7	1.6	63.3	53.7	48.6	56.7	63.7	0.2
1.0	61.7	1.5	63.2	54.1	48.5	56.6	63.6	0.2
1.5	62.1	1.3	63.4	54.3	48.8	56.9	63.9	0.2
2.0	62.3	1.4	63.7	54.5	49.0	57.0	64.0	0.2
2.5	62.4	1.5	63.9	54.8	49.1	57.1	64.1	0.2
3.0	64.3	2.0	66.3	57.2	51.0	58.4	65.4	1.1
3.5	78.5	2.9	81.4	72.1	66.7	71.9	78.9	1.1
4.0	88.3	3.1	91.4	82.3	76.5	81.7	88.7	1.1
4.5	92.7	3.0	95.7	86.5	81.0	86.1	93.1	1.1
5.0	95.6	3.1	98.7	89.3	83.7	88.9	95.9	1.1
5.5	97.1	3.0	100.1	90.7	85.1	90.4	97.4	1.1
6.0	97.7	2.9	100.6	91.2	85.8	91.1	98.1	1.1
6.5	98.1	2.8	100.9	91.7	86.1	91.5	98.5	1.1
7.0	98.3	2.8	101.1	91.7	86.3	91.7	98.7	1.1
7.5	98.3	2.8	101.1	91.8	86.3	91.7	98.7	1.1
8.0	98.3	2.9	101.2	91.6	86.4	91.8	98.8	1.1
8.5	98.4	2.9	101.3	91.8	86.4	91.8	98.8	1.1
9.0	98.4	2.9	101.3	91.7	86.4	91.8	98.8	1.1
9.5	98.3	2.8	101.1	91.7	86.4	91.8	98.8	1.1
10.0	98.4	2.8	101.2	91.8	86.4	91.9	98.9	1.1
10.5	98.4	2.8	101.2	91.7	86.5	91.9	98.9	1.1
11.0	98.4	2.8	101.2	91.9	86.5	91.9	98.9	1.1
11.5	98.4	2.8	101.2	91.7	86.5	91.9	98.9	1.1
12.0	98.4	2.7	101.1	91.9	86.5	91.9	98.9	1.1
12.5	98.5	2.8	101.3	91.8	86.5	91.8	98.8	1.1
13.0	98.5	2.8	101.3	91.9	86.5	91.9	98.9	1.1
13.5	98.4	2.8	101.2	91.7	86.5	91.9	98.9	1.1
14.0	98.4	2.8	101.2	91.8	86.5	91.8	98.8	1.1
14.5	98.5	2.9	101.4	91.9	86.6	91.9	98.9	1.1
15.0	98.5	2.8	101.3	91.9	86.6	91.9	98.9	1.1
15.5	97.4	2.6	100.0	91.0	85.5	90.8	97.8	1.1
16.0	95.4	2.6	98.0	88.9	83.6	88.9	95.9	1.1
16.5	93.2	2.6	95.8	86.6	81.3	86.7	93.7	1.1
17.0	90.9	2.6	93.5	84.4	79.1	84.4	91.4	1.1
17.5	88.6	2.6	91.2	82.2	76.9	82.2	89.2	1.1

MAXIMUM VALUES IN BANDS, PNLC = 98.7

50	63	80	100	125	160	200	250	315	400
73.7	73.4	73.7	84.2	71.6	70.6	85.4	75.0	86.6	69.6
82.6	78.7	74.6	72.7	74.6	74.7	75.1	73.3	68.0	62.3
56.0	52.3	49.1	46.0						

SPECTRUM FOR MAX PNLT

73.6	73.1	73.6	83.7	71.4	70.4	85.2	75.0	86.6	69.4
82.6	78.6	74.3	72.4	74.5	74.7	74.6	72.4	67.6	62.0
55.7	52.0	48.6	45.5						

	TIME	MAX.	D10	I-10	D20	I-20	D/15+M	D/30+M
P.T.	4.0	3.1						
PNL	12.5	98.5	13.5	108.9	14.0	108.9	98.0	95.2
PNLT	14.5	101.4	13.5	111.7	14.0	111.7	100.9	98.1
A-LEV	14.5	86.6	13.5	96.9	14.5	96.9	86.1	83.4
N-LEV	10.0	98.9	13.5	109.3	14.0	109.3	98.4	95.6

A-76

EPNL = 101.7

## MAN ACOUSTICS, EVENT #3

T	PNL	P.T.	PNLT	OA	A-LEV	D-LEV	N-LEV	BAND #
0.0	52.7	3.3	56.2	59.4	46.3	54.8	61.8	0.5
0.5	50.6	3.3	53.9	57.4	44.3	52.8	59.8	0.5
1.0	45.6	3.3	48.9	53.1	39.8	48.5	55.5	0.6
1.5	43.3	3.3	46.6	51.0	37.7	46.4	53.4	0.6
2.0	0.0	0.0	0.0	13.9	11.8	19.2	26.2	0.1
2.5	20.6	3.3	23.9	50.1	24.3	39.6	46.6	0.2
3.0	0.0	0.0	0.0	13.9	11.8	19.2	26.2	0.1
3.5	20.6	3.3	23.9	50.1	24.3	39.6	46.6	0.2
4.0	62.1	1.2	63.3	63.9	55.8	60.7	67.7	0.9
4.5	80.3	2.1	82.4	75.5	69.3	74.5	81.5	1.1
5.0	88.3	2.3	90.6	83.1	76.4	81.8	88.8	1.1
5.5	92.7	2.2	94.9	86.8	80.2	85.7	92.7	1.1
6.0	95.3	2.1	97.4	89.2	82.5	88.1	95.1	1.1
6.5	96.4	2.3	98.7	90.2	83.7	89.2	96.2	1.1
7.0	97.0	2.1	99.1	90.7	84.1	89.7	96.7	1.1
7.5	97.2	2.1	99.3	90.9	84.4	90.0	97.0	1.1
8.0	97.5	2.0	99.5	91.2	84.5	90.3	97.3	1.1
8.5	97.5	2.1	99.6	91.1	84.6	90.3	97.3	1.1
9.0	97.5	2.1	99.6	91.1	84.7	90.4	97.4	1.1
9.5	97.5	2.1	99.6	91.1	84.7	90.4	97.4	1.1
10.0	97.6	2.0	99.6	91.1	84.7	90.4	97.4	1.1
10.5	97.8	2.0	99.8	91.2	84.7	90.4	97.4	1.1
11.0	97.7	2.0	99.7	91.2	84.7	90.4	97.4	1.1
11.5	97.6	2.1	99.7	91.3	84.7	90.4	97.4	1.1
12.0	97.6	2.0	99.6	91.2	84.7	90.4	97.4	1.1
12.5	97.7	1.9	99.6	91.3	84.7	90.5	97.5	1.1
13.0	97.7	1.8	99.5	91.2	84.7	90.5	97.5	1.1
13.5	97.7	1.8	99.5	91.3	84.6	90.4	97.4	1.1
14.0	97.8	1.9	99.7	91.2	84.8	90.5	97.5	1.1
14.5	97.8	1.9	99.7	91.2	84.7	90.4	97.4	1.1
15.0	97.9	1.9	99.8	91.2	84.7	90.5	97.5	1.1
15.5	97.8	1.9	99.7	91.2	84.8	90.5	97.5	1.1
16.0	97.8	1.8	99.6	91.1	84.7	90.4	97.4	1.1
16.5	97.8	1.9	99.7	91.2	84.7	90.4	97.4	1.1
17.0	96.7	1.9	98.6	90.3	83.7	89.5	96.5	1.1
17.5	94.9	1.7	96.6	88.5	82.0	87.8	94.8	1.1
18.0	92.6	1.6	94.2	86.3	79.8	85.6	92.6	1.1
18.5	89.9	1.5	91.4	84.1	77.6	83.3	90.3	0.9
19.0	87.2	1.7	88.9	81.9	75.4	81.0	88.0	1.1

MAXIMUM VALUES IN BANDS, PNLC = 98.0

50	63	80	100	125	160	200	250	315	400
79.7	79.2	79.7	83.5	77.2	76.5	83.4	76.2	84.4	72.4
80.3	76.4	72.5	71.2	72.7	73.0	73.4	71.6	67.9	63.5
59.7	57.7	55.2	51.3						

SPECTRUM FOR MAX PNLT

79.7	79.1	79.3	82.7	77.0	76.0	83.1	76.2	84.3	72.1
80.3	76.2	72.2	70.7	72.3	72.4	73.2	71.4	67.4	62.9
58.7	56.9	54.4	50.1						

	TIME	MAX.	D10	I-10	D20	I-20	D/15+M	D/30+M
P.T.	0.0	3.3						
PNL	15.0	97.9	14.5	108.4	15.0	108.4	97.8	94.9
PNLT	10.5	99.8	14.5	110.3	15.0	110.3	99.7	96.8
A-LEV	14.0	84.8	14.5	95.4	15.0	95.4	84.7	81.8

A-77

N-LEV 12.5 97.5 14.5 108.1 15.0 108.1 97.4 94.5

EPNL =100.3

## MAN ACOUSTICS, EVENT #4

T	PNL	P.T.	PNLT	OA	A-LEV	D-LEV	N-LEV	BAND #
0.0	0.0	0.0	0.0	13.9	11.8	19.2	26.2	0.1
0.5	0.0	0.0	0.0	13.9	11.8	19.2	26.2	0.1
1.0	0.0	0.0	0.0	13.9	11.8	19.2	26.2	0.1
1.5	0.0	0.0	0.0	13.9	11.8	19.2	26.2	0.1
2.0	0.0	0.0	0.0	13.9	11.8	19.2	26.2	0.1
2.5	0.0	0.0	0.0	13.9	11.8	19.2	26.2	0.1
3.0	0.0	0.0	0.0	13.9	11.8	19.2	26.2	0.1
3.5	20.4	3.3	23.7	50.0	24.2	39.5	46.5	0.2
4.0	22.4	3.3	25.7	50.9	25.0	40.4	47.4	0.2
4.5	55.2	0.0	55.2	61.3	48.1	55.5	62.5	0.1
5.0	86.5	6.4	92.9	79.4	75.4	80.8	87.8	1.6
5.5	86.3	1.0	87.3	83.8	73.2	79.6	86.6	1.1
6.0	89.3	1.0	90.8	86.6	76.2	82.7	89.7	1.1
6.5	91.7	0.7	92.4	88.2	77.7	84.4	91.4	0.9
7.0	92.6	0.6	93.2	88.8	78.6	85.2	92.2	0.9
7.5	93.0	0.6	93.6	89.2	79.1	85.7	92.7	0.9
8.0	93.3	0.0	93.3	89.4	79.3	85.9	92.9	0.1
8.5	93.5	0.5	94.0	89.5	79.5	86.1	93.1	0.9
9.0	93.6	0.0	93.6	89.5	79.6	86.2	93.2	0.1
9.5	93.7	0.5	94.2	89.5	79.7	86.3	93.3	0.9
10.0	93.6	0.5	94.1	89.5	79.6	86.2	93.2	0.9
10.5	93.6	0.5	94.1	89.5	79.5	86.2	93.2	0.9
11.0	93.6	0.0	93.6	89.6	79.5	86.2	93.2	0.1
11.5	93.6	0.5	94.1	89.7	79.5	86.2	93.2	0.9
12.0	93.6	0.5	94.1	89.7	79.5	86.2	93.2	0.9
12.5	93.6	0.6	94.2	89.7	79.5	86.2	93.2	0.9
13.0	93.7	0.0	93.7	89.7	79.6	86.3	93.3	0.1
13.5	93.8	0.5	94.3	89.7	79.6	86.3	93.3	0.9
14.0	93.8	0.5	94.3	89.6	79.7	86.3	93.3	0.9
14.5	93.9	0.6	94.5	89.6	79.7	86.3	93.3	0.9
15.0	93.6	0.5	94.1	89.6	79.5	86.1	93.1	0.9
15.5	93.5	0.5	94.0	89.6	79.5	86.1	93.1	0.9
16.0	93.5	0.0	93.5	89.6	79.4	86.1	93.1	0.1
16.5	93.2	0.0	93.2	89.5	79.2	85.9	92.9	0.1
17.0	92.3	0.0	92.3	88.6	78.4	85.0	92.0	0.1
17.5	90.4	0.0	90.4	86.8	76.6	83.3	90.3	0.1
18.0	88.1	0.0	88.1	84.5	74.4	81.0	88.0	0.1
18.5	85.5	0.0	85.5	82.3	72.1	78.7	85.7	0.1
19.0	81.9	0.0	81.9	80.0	69.8	76.2	83.2	0.1
19.5	79.5	0.0	79.5	77.7	67.5	73.9	80.9	0.1

MAXIMUM VALUES IN BANDS, PNLC = 95.2

50	63	80	100	125	160	200	250	315	400
81.3	80.9	81.5	81.9	79.2	78.7	78.7	76.3	77.6	72.4
73.2	69.4	67.7	68.0	68.0	73.7	67.2	66.1	63.5	61.4
59.8	58.5	56.2	51.4						

SPECTRUM FOR MAX PNLT

81.2	80.7	81.2	81.3	79.0	78.2	78.3	76.2	77.6	72.3
73.1	69.3	67.7	67.6	67.0	66.9	67.2	65.7	63.2	61.4
59.8	58.5	56.2	51.4						

	TIME	MAX.	D10	I-10	D20	I-20	D/15+M	D/30+M	
P.T.	5.0	6.4							
PNL	14.5	73.9	14.5	104.2	15.0	104.2	93.8	90.9	A-79
PNLT	14.5	94.5	14.5	104.6	15.0	104.7	94.4	91.5	

A-LEV	9.5	79.7	15.0	90.2	15.0	90.2	79.7	76.7
N-LEV	9.5	93.3	14.5	103.8	15.0	103.8	93.2	90.3

EPNL = 94.6



## MAN ACOUSTICS. EVNT #5

T	PNL	P.T.	PNLT	OA	A-LEV	D-LEV	N-LEV	BAND #
0.0	20.3	3.3	24.1	50.2	24.4	39.7	45.7	0.2
0.5	22.3	3.3	26.1	51.1	25.2	40.6	47.6	0.2
1.0	24.6	3.3	27.9	52.0	26.1	41.5	48.5	0.2
1.5	49.0	3.3	52.3	54.6	43.9	49.9	56.9	0.2
2.0	71.5	1.7	73.2	69.0	62.3	67.3	74.3	0.9
2.5	82.3	2.5	85.3	77.9	71.7	77.0	84.0	1.1
3.0	88.7	2.4	91.1	83.5	76.9	82.4	89.4	1.1
3.5	92.3	2.4	94.7	86.6	80.2	85.6	92.6	1.1
4.0	94.9	2.4	97.3	88.9	82.5	88.0	95.0	1.1
4.5	96.3	2.3	98.6	90.0	83.7	89.3	96.3	1.1
5.0	96.9	2.3	99.2	90.5	84.2	89.8	96.8	1.1
5.5	97.2	2.2	99.4	90.9	84.4	90.1	97.1	1.1
6.0	97.3	2.1	99.4	90.9	84.6	90.3	97.3	1.1
6.5	97.3	2.2	99.5	90.9	84.6	90.3	97.3	1.1
7.0	97.4	2.1	99.5	91.0	84.6	90.3	97.3	1.1
7.5	97.5	2.2	99.7	91.2	84.7	90.4	97.4	1.1
8.0	97.6	2.2	99.8	91.0	84.8	90.4	97.4	1.1
8.5	97.6	2.1	99.7	91.1	84.8	90.4	97.4	1.1
9.0	97.7	2.2	99.9	91.1	84.9	90.5	97.5	1.1
9.5	97.5	2.2	99.7	91.1	84.8	90.4	97.4	1.1
10.0	97.5	2.1	99.6	90.9	84.7	90.4	97.4	1.1
10.5	97.5	2.1	99.6	91.1	84.7	90.3	97.3	1.1
11.0	97.4	2.1	99.5	90.9	84.6	90.3	97.3	1.1
11.5	97.4	2.2	99.6	91.1	84.7	90.3	97.3	1.1
12.0	97.5	2.2	99.7	90.9	84.7	90.4	97.4	1.1
12.5	97.5	2.2	99.7	90.9	84.7	90.4	97.4	1.1
13.0	97.5	2.2	99.7	90.9	84.8	90.5	97.5	1.1
13.5	97.6	2.2	99.8	90.9	84.8	90.5	97.5	1.1
14.0	97.6	2.3	99.9	91.0	84.8	90.5	97.5	1.1
14.5	97.2	2.1	99.3	90.7	84.4	90.1	97.1	1.1
15.0	95.6	2.0	97.6	89.2	82.9	88.6	95.6	1.1
15.5	93.3	1.9	95.2	87.1	80.8	86.5	93.5	1.1
16.0	90.8	1.8	92.6	84.9	78.6	84.2	91.2	0.9
16.5	88.2	1.8	90.0	82.6	76.4	82.0	89.0	0.9
17.0	85.5	1.9	87.4	80.4	74.1	79.7	86.7	1.1

MAXIMUM VALUES IN BANDS, PNLC = 98.0

50	63	80	100	125	160	200	250	315	400
79.7	78.2	79.3	83.1	76.4	75.9	83.5	75.5	84.7	71.3
80.5	76.6	72.6	71.1	72.7	73.0	73.6	72.0	67.5	63.2
58.6	56.6	54.0	50.0						

## SPECTRUM FOR MAX PNLT

79.4	77.5	78.8	82.1	76.3	75.5	83.4	75.5	84.6	70.9
80.3	76.3	72.5	71.0	72.7	72.7	73.3	71.9	66.8	62.7
58.6	56.3	53.6	0.1						

	TIME	MAX.	D10	I-10	D20	I-20	D/15+M	D/30+M
P.T.	0.0	3.3						
PNL	9.0	97.7	14.5	108.1	15.0	108.1	97.6	94.7
PNLT	9.0	99.9	14.5	110.3	15.0	110.3	99.8	96.9
A-LEV	9.0	84.9	14.5	95.4	15.0	95.4	84.8	81.9
N-LEV	9.0	97.5	14.5	108.0	15.0	108.0	97.4	94.5

EPNL = 100.3

A-81



## MAN ACOUSTICS, EVENT #6

T	PNL	P.T.	PNLT	DA	A-LEV	D-LEV	N-LEV	BAND #
0.0	22.0	3.3	25.3	50.7	24.8	40.2	47.2	0.2
0.5	0.0	0.0	0.0	13.9	11.8	19.2	26.2	0.1
1.0	20.6	3.3	23.9	50.1	24.3	39.6	46.6	0.2
1.5	44.7	3.3	48.2	53.5	39.4	47.6	54.6	0.2
2.0	75.2	1.3	76.5	71.8	64.6	70.1	77.1	0.9
2.5	85.8	1.6	87.4	81.2	73.5	79.3	86.3	1.1
3.0	90.7	1.9	92.6	85.5	77.9	83.7	90.7	1.1
3.5	93.7	1.9	95.8	88.4	80.7	86.5	93.5	1.1
4.0	96.2	1.9	98.1	90.5	82.9	88.7	95.7	1.1
4.5	97.3	1.8	99.1	91.5	83.8	89.7	96.7	1.1
5.0	97.7	1.7	99.4	91.7	84.2	90.1	97.1	1.1
5.5	97.9	1.8	99.7	92.0	84.4	90.4	97.4	1.1
6.0	98.1	1.8	99.9	92.0	84.7	90.6	97.6	1.1
6.5	98.2	1.8	100.0	92.2	84.7	90.7	97.7	1.1
7.0	98.3	1.6	99.9	92.2	84.8	90.8	97.8	1.1
7.5	98.2	1.6	99.8	92.2	84.7	90.8	97.8	1.1
8.0	98.3	1.7	100.0	92.2	84.9	90.8	97.8	1.1
8.5	98.3	1.8	100.1	92.2	84.9	90.9	97.9	1.1
9.0	98.3	1.9	100.2	92.2	84.9	90.9	97.9	1.1
9.5	98.4	1.9	100.3	92.2	84.9	90.9	97.9	1.1
10.0	98.2	2.0	100.2	92.1	84.8	90.8	97.8	1.1
10.5	98.3	2.0	100.3	92.2	84.8	90.8	97.8	1.1
11.0	98.3	1.9	100.2	92.2	84.8	90.8	97.8	1.1
11.5	98.4	1.9	100.3	92.3	84.8	90.8	97.8	1.1
12.0	98.4	2.0	100.4	92.3	84.9	90.8	97.8	1.1
12.5	98.4	2.0	100.4	92.2	84.8	90.8	97.8	1.1
13.0	98.3	1.9	100.2	92.2	84.8	90.8	97.8	1.1
13.5	98.3	1.8	100.1	92.3	84.9	90.8	97.8	1.1
14.0	98.3	1.6	99.9	92.2	84.8	90.8	97.8	1.1
14.5	98.3	1.4	99.7	92.2	84.7	90.7	97.7	0.9
15.0	97.3	1.3	98.6	91.3	83.7	89.8	96.8	0.9
15.5	95.2	1.3	96.5	89.3	81.7	87.8	94.8	0.9
16.0	92.8	1.3	94.1	87.0	79.5	85.6	92.6	0.9
16.5	90.4	1.3	91.7	84.8	77.3	83.3	90.3	0.9
17.0	87.9	1.3	89.2	82.5	75.1	81.0	88.0	0.9
17.5	84.9	1.4	86.3	80.3	72.8	78.7	85.7	0.9

MAXIMUM VALUES IN BANDS, PNLC = 98.6

50	63	80	100	125	160	200	250	315	400
83.7	79.2	82.6	84.7	78.4	78.6	83.4	76.8	83.9	73.8
80.6	76.2	73.0	71.5	72.7	73.3	73.4	72.0	68.6	65.5
63.0	61.6	58.8	54.4						

SPECTRUM FOR MAX PNLT

83.7	79.2	82.6	84.5	78.1	78.3	82.8	76.7	83.9	73.4
80.6	76.0	72.7	71.1	72.5	72.7	72.7	71.7	68.5	65.4
63.0	61.6	58.7	54.3						

	TIME	MAX	D10	I-10	D20	I-20	D/15+M	D/30+M
P.T.	0.0	3.3						
PNL	9.5	98.4	14.5	109.0	15.5	109.0	98.3	95.5
PNLT	12.0	100.4	14.5	110.8	15.5	110.8	100.3	97.5
A-LEV	8.0	84.9	15.0	95.6	15.5	95.6	84.9	82.0
N-LEV	8.5	97.9	15.0	108.5	15.5	108.5	97.9	95.0

EPNL = 100.8

A-82

## MAN ACOUSTICS, EVENT #7

T	PNL	P.T.	PNLT	OA	A-LEV	D-LEV	N-LEV	BAND #
0.0	0.0	0.0	0.0	13.9	11.8	19.2	26.2	0.1
0.5	0.0	0.0	0.0	13.9	11.8	19.2	26.2	0.1
1.0	0.0	0.0	0.0	13.9	11.8	19.2	26.2	0.1
1.5	0.0	0.0	0.0	13.9	11.8	19.2	26.2	0.1
2.0	77.1	2.5	79.6	72.4	67.1	72.1	79.1	1.1
2.5	87.3	2.5	89.8	81.6	75.8	81.2	88.2	1.1
3.0	92.6	2.6	95.2	86.5	80.7	86.1	93.1	1.1
3.5	95.4	2.5	97.9	89.0	83.4	88.7	95.7	1.1
4.0	96.8	2.5	99.3	90.1	84.4	89.8	96.8	1.1
4.5	97.2	2.5	99.7	90.4	84.8	90.3	97.3	1.1
5.0	97.2	2.5	99.7	90.6	84.9	90.5	97.5	1.1
5.5	97.5	2.4	99.9	90.7	85.1	90.6	97.6	1.1
6.0	97.7	2.4	100.1	90.9	85.3	90.8	97.8	1.1
6.5	97.7	2.5	100.2	90.7	85.3	90.9	97.9	1.1
7.0	97.7	2.3	100.0	90.7	85.3	90.9	97.9	1.1
7.5	97.6	2.4	100.0	90.8	85.3	90.8	97.8	1.1
8.0	97.7	2.4	100.1	90.8	85.4	90.9	97.9	1.1
8.5	97.7	2.5	100.2	90.8	85.4	91.0	98.0	1.1
9.0	97.6	2.5	100.1	90.7	85.4	91.0	98.0	1.1
9.5	97.8	2.5	100.3	91.0	85.4	90.9	97.9	1.1
10.0	97.7	2.5	100.2	90.9	85.3	90.8	97.8	1.1
10.5	97.5	2.4	99.9	90.9	85.2	90.7	97.7	1.1
11.0	97.7	2.4	100.1	90.8	85.4	90.9	97.9	1.1
11.5	97.8	2.5	100.3	91.0	85.4	91.0	98.0	1.1
12.0	97.8	2.5	100.3	90.9	85.4	90.9	97.9	1.1
12.5	97.6	2.6	100.2	90.8	85.2	90.8	97.8	1.1
13.0	97.5	2.4	99.9	90.7	85.3	90.8	97.8	1.1
13.5	97.8	2.4	100.2	90.8	85.4	90.9	97.9	1.1
14.0	96.7	2.2	98.9	89.8	84.4	89.9	96.9	1.1
14.5	94.7	2.2	96.9	87.7	82.4	88.0	95.0	1.1
15.0	92.2	2.2	94.4	85.5	80.2	85.8	92.8	1.1
15.5	89.7	2.1	91.8	83.3	78.0	83.5	90.5	1.1
16.0	87.1	2.2	89.3	81.1	75.8	81.2	88.2	1.1

MAXIMUM VALUES IN BANDS: PNLC = 98.0

50	63	80	100	125	160	200	250	315	400
77.3	76.7	77.0	82.9	74.5	73.3	83.6	74.1	85.0	70.2
81.0	77.1	74.4	72.2	73.7	74.2	74.4	72.7	68.6	63.9
59.1	56.6	53.0	0.0						

SPECTRUM FOR MAX PNLT

77.3	76.6	76.8	82.6	74.3	73.2	83.5	73.7	84.9	69.9
81.0	76.9	74.1	71.7	73.1	73.7	73.8	72.2	68.2	63.5
58.6	56.2	52.4	0.1						

	TIME	MAX.	D10	I-10	D20	I-20	D/15+M	D/30+M
P.T.	3.0	2.6						
PNL	9.5	97.8	13.5	108.2	14.0	108.2	97.3	94.5
PNLT	9.5	100.3	13.5	110.6	14.0	110.6	99.8	97.0
A-LEV	8.0	85.4	14.0	95.8	14.5	95.8	85.1	82.2
N-LEV	8.5	98.0	14.0	108.4	14.5	108.4	97.7	94.8

EPNL = 100.6

A-83

## MAN ACOUSTICS, EVENT #8

T	PNL	P.T.	PNLT	QA	A-LEV	D-LEV	N-LEV	BAND #
0.0	71.0	1.4	72.4	69.2	59.0	64.8	71.8	1.5
0.5	75.3	0.9	76.2	73.6	62.6	68.7	75.7	0.2
1.0	77.8	0.7	78.5	75.8	66.1	71.4	78.4	0.2
1.5	80.8	0.6	81.4	78.6	69.1	74.3	81.3	0.2
2.0	83.6	1.7	85.3	81.8	71.3	76.9	83.9	1.5
2.5	86.1	1.3	87.4	85.3	73.1	79.5	86.5	1.5
3.0	87.6	1.1	88.7	87.0	74.7	81.0	88.0	1.5
3.5	89.0	0.9	89.9	88.4	77.0	82.6	89.6	0.2
4.0	89.6	0.8	90.4	88.6	77.9	83.1	90.1	0.2
4.5	89.6	0.9	90.5	88.9	77.4	83.0	90.0	0.2
5.0	89.5	0.7	90.2	88.9	77.1	82.9	89.9	0.2
5.5	89.7	0.9	90.6	89.0	77.3	83.0	90.0	0.2
6.0	89.4	0.8	90.2	89.1	76.6	82.8	89.8	0.2
6.5	89.2	0.7	89.9	89.1	76.1	82.7	89.7	0.2
7.0	89.3	0.6	89.9	89.0	75.8	82.6	89.6	0.2
7.5	89.3	0.6	89.9	89.0	76.6	82.8	89.8	0.2
8.0	90.1	1.5	91.6	89.7	78.6	83.5	90.5	1.3
8.5	91.1	1.6	92.7	88.5	79.9	84.3	91.3	1.5
9.0	91.0	1.4	92.4	88.9	80.0	84.4	91.4	1.3
9.5	90.5	1.3	91.8	89.0	79.3	83.9	90.9	1.3
10.0	91.0	1.1	92.1	89.6	79.7	84.5	91.5	1.1
10.5	92.1	1.1	93.2	89.6	81.0	85.5	92.5	1.5
11.0	92.9	1.4	94.3	89.3	81.8	86.2	93.2	1.1
11.5	94.2	1.3	95.5	89.3	82.8	87.1	94.1	1.1
12.0	94.4	1.2	95.6	89.1	82.8	87.2	94.2	1.9
12.5	94.2	1.2	95.4	89.2	82.5	87.0	94.0	1.9
13.0	93.9	1.1	95.0	89.6	82.6	87.0	94.0	1.9
13.5	94.9	1.1	96.0	89.7	84.0	88.1	95.1	1.9
14.0	95.3	1.1	96.4	88.6	84.8	88.6	95.6	1.9
14.5	95.7	1.2	96.9	88.7	85.6	89.3	96.3	1.3
15.0	95.7	1.2	96.9	89.4	85.5	89.3	96.3	1.9
15.5	96.7	1.2	97.9	90.1	86.3	90.2	97.2	1.9
16.0	96.7	1.4	98.3	90.3	86.0	90.2	97.2	1.9
16.5	96.3	2.0	98.8	90.4	86.7	90.6	97.6	1.2
17.0	97.7	1.4	99.1	90.4	87.1	91.3	98.3	1.2
17.5	98.1	1.3	99.4	90.4	87.5	91.7	98.7	1.9
18.0	98.2	1.5	99.7	90.6	87.9	92.1	99.1	1.9
18.5	98.1	1.4	99.5	90.8	87.9	92.1	99.1	1.9
19.0	98.6	1.1	99.7	91.3	88.6	92.6	99.6	1.9
19.5	99.2	1.0	100.2	91.7	89.4	93.3	100.3	1.9
20.0	98.9	0.8	99.7	91.3	89.0	92.9	99.9	0.8
20.5	99.0	0.7	99.7	91.3	89.1	93.0	100.0	0.7
21.0	99.0	0.8	99.8	91.2	88.7	92.9	99.9	0.7
21.5	99.7	1.3	101.0	91.7	89.0	93.5	100.5	1.2
22.0	100.0	0.0	100.0	92.1	89.1	93.8	100.8	0.1
22.5	100.1	0.5	100.6	92.1	89.2	94.0	101.0	0.6
23.0	100.9	1.5	102.4	92.3	89.4	94.4	101.4	1.8
23.5	100.8	0.8	101.6	92.6	89.4	94.5	101.5	0.6
24.0	100.1	0.5	100.6	92.4	88.7	93.8	100.8	0.9
24.5	99.9	0.6	100.5	92.2	88.7	93.7	100.7	0.2
25.0	99.6	0.7	100.3	92.3	88.5	93.4	100.4	0.9
25.5	99.3	1.4	101.2	92.6	88.5	93.4	100.4	1.2
26.0	100.9	2.0	102.9	92.9	88.7	94.1	101.1	1.8
26.5	102.0	2.7	104.7	92.7	88.8	95.0	102.0	1.8
27.0	102.2	2.7	104.9	92.3	88.8	95.3	102.3	1.8
27.5	102.2	2.4	104.6	92.3	88.8	95.3	102.3	1.8
28.0	102.2	2.3	104.5	92.3	88.9	95.4	102.4	1.8
28.5	102.4	2.3	104.7	92.7	89.0	95.5	102.5	1.8
29.0	102.1	2.0	104.1	92.7	88.9	95.5	102.5	1.8

29.5	101.3	1.5	102.8	92.8	88.2	94.7	101.7	1.8
30.0	101.1	1.3	102.4	93.4	88.3	94.6	101.6	1.8
30.5	101.8	1.8	103.6	93.4	88.6	94.9	101.9	1.7
31.0	101.8	2.0	103.8	93.4	88.5	94.8	101.8	1.7
31.5	101.4	2.0	103.4	93.4	88.2	94.4	101.4	1.7
32.0	101.0	2.0	103.0	93.3	87.7	94.0	101.0	1.7
32.5	100.8	2.1	102.9	93.4	87.5	93.7	100.7	1.7
33.0	100.4	2.2	102.6	92.8	87.1	93.3	100.3	1.7
33.5	100.1	2.3	102.4	92.9	86.7	93.0	100.0	1.7
34.0	99.9	2.3	102.2	93.0	86.7	92.9	99.9	1.7
34.5	100.0	2.7	102.7	92.7	86.6	93.0	100.0	1.7
35.0	98.9	2.7	101.6	92.4	85.4	91.9	98.9	1.7
35.5	98.2	2.4	100.6	92.0	84.7	91.0	98.0	1.7
36.0	97.8	2.2	100.0	92.3	84.5	90.8	97.8	1.7
36.5	97.1	2.0	99.1	92.7	83.7	90.1	97.1	1.7
37.0	96.7	1.9	98.6	92.5	83.5	89.8	96.8	1.7
37.5	96.7	2.2	98.9	92.4	83.4	89.7	96.7	1.7
38.0	96.2	2.1	98.3	92.8	83.0	89.4	96.4	1.7
38.5	95.8	2.0	97.8	92.5	82.5	88.9	95.9	1.7
39.0	95.1	1.8	96.9	92.0	81.9	88.2	95.2	1.7
39.5	94.6	1.8	96.4	91.6	81.1	87.5	94.5	1.7
40.0	93.7	1.8	95.5	91.1	80.0	86.5	93.5	1.7
40.5	93.6	1.7	95.3	90.7	79.7	86.2	93.2	1.7
41.0	93.1	1.8	94.9	90.3	79.5	85.8	92.8	1.7
41.5	92.8	1.4	94.2	90.7	79.2	85.6	92.6	1.7
42.0	92.1	1.5	93.6	90.4	78.4	84.9	91.9	1.7
42.5	91.3	1.5	92.8	90.2	77.2	84.1	91.1	1.7
43.0	91.1	1.5	92.6	90.3	77.1	83.9	90.9	1.7
43.5	91.5	1.5	93.0	90.6	77.4	84.2	91.2	1.7
44.0	91.0	1.5	92.5	90.7	76.7	83.8	90.8	1.7
44.5	90.0	1.4	91.4	90.3	75.5	82.9	89.9	1.7
45.0	89.4	1.3	90.7	89.7	74.8	82.3	89.3	1.7
45.5	89.1	1.5	90.6	89.1	75.0	82.1	89.1	1.7
46.0	88.6	1.5	90.1	88.3	74.1	81.4	88.4	1.7
46.5	87.1	1.4	89.5	87.4	72.5	80.1	87.1	1.7
47.0	85.4	1.2	86.6	86.3	70.8	78.7	85.7	1.7
47.5	83.4	1.1	84.5	84.7	69.0	76.9	83.9	1.7
48.0	81.3	0.6	81.9	82.5	67.0	74.8	81.8	0.7
48.5	79.4	0.6	80.0	80.8	65.1	73.0	80.0	0.7
49.0	77.3	0.6	77.9	78.8	63.0	71.0	78.0	0.7

MAXIMUM VALUES IN BANDS, PNLC =104.4

50	63	80	100	125	160	200	250	315	400
86.2	85.2	82.0	81.3	85.3	87.4	85.3	83.2	84.5	81.1
81.5	82.4	83.7	82.3	80.7	80.3	82.5	82.0	69.9	62.6
56.5	44.7	42.4	43.0						

SPECTRUM FOR MAX PNLT

74.2	72.0	70.5	75.2	81.0	85.1	81.1	80.5	84.2	77.2
78.7	79.8	77.4	77.0	77.5	77.2	78.0	82.0	69.6	61.3
53.4	44.1	42.2	43.0						

	TIME	MAX.	D10	I-10	D20	I-20	D/15+M	D/30+M
P. T.	26.5	2.7						
PNL	23.5	102.4	31.5	114.0	46.5	114.2	105.6	104.3
PNLT	27.0	104.9	30.0	115.7	46.0	116.0	107.9	106.8
A-LEV	19.5	89.4	32.0	102.0	46.0	102.1	92.7	91.3
N-LEV	28.5	102.5	31.5	114.4	46.5	114.6	105.7	104.4

PPNL =105.7

A-85

BEST AVAILABLE COPY



## MAN ACOUSTICS, EVENT #9

T	PNL	P.T.	PNLT	OA	A-LEV	D-LEV	N-LEV	BAND #
0.0	52.1	0.8	52.9	49.5	44.8	52.3	59.3	0.2
0.5	52.0	0.8	52.8	49.5	44.8	52.3	59.3	0.2
1.0	52.0	1.0	53.0	49.7	44.9	52.4	59.4	0.2
1.5	53.0	1.0	54.0	51.1	45.2	52.7	59.7	0.2
2.0	53.7	1.7	55.4	54.4	45.4	53.1	60.1	0.2
2.5	61.0	1.8	62.8	58.8	51.0	56.3	63.3	0.2
3.0	65.6	1.6	67.2	63.9	56.3	60.9	67.9	0.2
3.5	70.7	1.7	72.4	68.5	60.5	65.3	72.3	0.2
4.0	71.4	1.6	73.0	69.7	61.2	66.0	73.0	0.2
4.5	72.7	1.5	74.2	70.2	62.7	67.0	74.0	0.2
5.0	73.9	1.6	75.5	71.7	63.9	68.2	75.2	0.2
5.5	75.3	1.5	76.8	72.7	65.4	69.5	76.5	0.2
6.0	76.1	1.4	77.5	73.2	66.5	70.3	77.3	0.2
6.5	77.0	1.5	78.5	74.3	67.4	71.3	78.3	0.2
7.0	80.7	1.3	82.0	77.1	71.0	74.8	81.8	0.2
7.5	84.9	1.2	86.1	80.4	74.4	78.5	85.5	0.2
8.0	88.6	0.8	89.4	84.1	77.9	82.2	89.2	0.2
8.5	90.1	0.0	90.1	85.8	80.2	84.1	91.1	0.1
9.0	90.5	0.0	90.5	85.9	80.3	84.2	91.2	0.1
9.5	91.0	0.7	91.7	86.2	80.5	84.5	91.5	0.2
10.0	91.1	1.0	92.1	86.3	80.4	84.4	91.4	0.2
10.5	91.3	1.0	92.3	86.5	80.5	84.7	91.7	0.2
11.0	91.5	0.9	92.4	86.5	80.7	84.9	91.9	0.2
11.5	91.7	0.8	92.5	87.0	81.1	85.3	92.3	0.2
12.0	91.6	1.0	92.6	87.1	80.9	85.1	92.1	0.2
12.5	91.5	1.1	92.6	86.4	81.0	85.0	92.0	0.2
13.0	91.6	1.2	92.8	86.3	81.1	85.2	92.2	0.2
13.5	91.1	1.1	92.2	85.9	80.3	84.6	91.6	0.2
14.0	90.4	1.2	91.6	85.7	79.4	83.8	90.8	0.2
14.5	91.7	1.1	92.8	86.2	81.1	85.2	92.2	1.6
15.0	92.6	1.0	93.6	86.8	82.4	86.3	93.3	1.8
15.5	92.7	0.6	93.3	86.9	82.6	86.5	93.5	0.2
16.0	92.5	0.5	93.0	86.8	82.0	86.1	93.1	0.2
16.5	92.4	1.2	93.6	86.7	81.9	85.9	92.9	1.3
17.0	92.0	1.0	93.0	86.7	81.1	85.4	92.4	0.2
17.5	92.3	0.8	93.1	86.7	81.2	85.6	92.6	0.2
18.0	93.7	0.7	94.4	87.1	83.2	87.3	94.3	0.2
18.5	93.9	0.9	94.8	87.4	83.5	87.6	94.6	0.2
19.0	93.8	1.0	94.8	87.1	83.1	87.4	94.4	0.2
19.5	94.5	1.2	95.7	87.1	83.9	88.3	95.3	1.2
20.0	94.8	1.4	96.2	86.9	83.9	88.6	95.6	1.2
20.5	94.3	1.1	95.9	87.0	83.6	88.4	95.4	1.2
21.0	95.0	0.5	95.5	87.0	83.8	88.4	95.4	0.2
21.5	96.1	0.8	96.9	87.9	85.1	89.6	96.6	0.8
22.0	96.2	1.1	97.3	88.6	85.4	90.0	97.0	1.1
22.5	96.4	1.1	97.5	88.5	85.9	90.3	97.3	1.1
23.0	96.0	1.4	97.4	88.4	85.3	89.7	96.7	1.1
23.5	97.2	1.2	98.4	89.9	86.6	91.1	98.1	1.1
24.0	98.1	0.7	98.8	90.2	87.4	91.9	98.9	0.2
24.5	98.5	0.6	99.1	90.3	87.8	92.3	99.3	0.2
25.0	98.1	0.7	98.8	90.4	87.5	92.0	99.0	0.8
25.5	98.3	0.8	99.1	90.8	87.7	92.2	99.2	0.7
26.0	98.0	0.9	98.9	90.3	87.0	91.8	98.8	0.7
26.5	98.1	0.9	99.0	90.0	87.3	92.0	99.0	0.6
27.0	98.2	1.1	99.3	90.3	87.3	91.9	98.9	0.6
27.5	98.0	1.3	99.3	90.5	87.1	91.8	98.8	0.6
28.0	98.1	1.2	99.3	90.4	87.2	91.9	98.9	0.6
28.5	97.9	0.7	98.6	90.3	87.0	91.7	98.7	0.2
29.0	98.1	1.2	99.3	90.4	87.2	91.9	98.9	0.6

29.5	98.0	1.2	99.2	90.3	87.2	91.7	98.7	2.0
30.0	98.0	1.5	99.5	90.2	87.3	91.8	98.8	2.0
30.5	98.3	1.4	99.7	90.4	87.8	92.1	99.1	2.0
31.0	98.1	1.6	99.7	90.3	87.4	91.9	98.9	2.0
31.5	98.7	1.3	100.0	91.0	88.3	92.6	99.6	2.0
32.0	98.5	1.3	99.8	90.9	88.0	92.3	99.3	2.0
32.5	98.6	1.3	99.9	91.1	88.1	92.4	99.4	2.0
33.0	98.3	1.3	99.6	90.9	87.9	92.2	99.2	2.0
33.5	97.8	1.7	99.5	90.3	87.3	91.7	98.7	2.0
34.0	98.8	1.8	100.6	90.5	87.8	92.4	99.4	2.0
34.5	99.9	1.7	101.6	90.4	87.9	93.4	100.4	2.0
35.0	99.4	1.7	101.1	90.6	87.9	93.0	100.0	2.0
35.5	99.3	1.4	100.7	90.7	87.6	92.9	99.9	2.0
36.0	99.7	1.3	101.0	91.0	88.3	93.4	100.4	2.0
36.5	100.2	1.3	101.5	91.4	88.8	93.9	100.9	2.0
37.0	99.9	1.3	101.2	91.6	88.7	93.7	100.7	2.0
37.5	99.4	1.2	100.6	91.3	88.3	93.2	100.2	2.0
38.0	98.7	0.5	99.2	90.6	87.7	92.6	99.6	0.6
38.5	99.2	1.0	100.2	90.4	87.4	92.8	99.8	1.9
39.0	99.3	1.0	100.3	90.9	87.7	92.9	99.9	1.9
39.5	99.9	0.7	100.6	91.0	87.8	93.2	100.2	0.6
40.0	99.6	0.7	100.3	91.2	88.1	93.2	100.2	0.6
40.5	100.5	1.3	101.8	91.2	88.4	94.1	101.1	1.9
41.0	100.6	1.5	102.1	92.0	88.7	94.2	101.2	1.9
41.5	100.8	1.3	102.1	92.2	89.2	94.5	101.5	1.9
42.0	100.3	1.2	101.5	92.1	88.5	93.8	100.8	1.9
42.5	100.4	1.4	101.8	91.9	88.3	93.7	100.7	1.9
43.0	100.1	1.4	101.5	92.3	88.3	93.4	100.4	1.9
43.5	99.7	1.1	100.8	92.2	88.2	93.1	100.1	1.9
44.0	99.5	0.9	100.4	92.7	88.7	93.2	100.2	0.9
44.5	98.9	1.0	99.9	92.6	88.0	92.5	99.5	1.9
45.0	98.9	1.1	100.0	92.8	87.6	92.2	99.2	1.1
45.5	99.2	1.1	100.3	93.3	87.9	92.4	99.4	0.9
46.0	99.3	1.0	100.3	93.7	88.0	92.5	99.5	0.9
46.5	98.4	1.0	99.4	93.5	86.8	91.7	98.7	0.9
47.0	98.0	0.9	98.9	93.5	86.6	91.4	98.4	0.4
47.5	97.5	1.1	98.6	92.8	85.8	90.7	97.7	1.1
48.0	96.7	0.8	97.5	92.2	84.8	89.8	96.8	0.9
48.5	97.2	1.0	98.2	92.6	85.6	90.4	97.4	1.1
49.0	97.4	0.7	98.1	93.3	85.8	90.8	97.8	0.9
49.5	97.1	0.0	97.1	93.0	85.9	90.6	97.6	0.1
50.0	97.5	0.6	98.1	93.4	85.4	90.5	97.5	0.7
50.5	97.1	0.5	97.6	93.5	84.7	90.2	97.2	0.2
51.0	97.6	1.7	99.3	93.7	85.4	90.6	97.6	1.8
51.5	97.6	1.5	99.1	94.1	84.5	90.3	97.3	1.8
52.0	97.4	1.4	98.8	94.7	83.7	90.3	97.3	1.8

BEST AVAILABLE COPY

MAXIMUM VALUES IN BANDS: PNLC =103.0

50	63	80	100	125	160	200	250	315	400
79.7	85.9	83.5	87.2	84.7	87.7	87.3	82.7	86.2	81.2
83.3	81.9	81.0	79.7	80.6	79.1	78.2	77.7	76.9	68.0
49.2	44.3	43.3	43.4						

SPECTRUM FOR MAX PNLT

66.9	71.7	72.7	78.7	76.9	83.6	80.6	79.7	82.7	79.6
81.3	81.5	80.4	78.5	79.4	76.0	74.9	77.2	76.7	62.5
49.0	44.1	42.3	43.3						

P T	TIME	MAX	D10	I-10	D20	I-20	D/15+M	D/30+M	A-87
	2.5	1.8							



PNL	41.5	100.8	38.0	113.8	45.0	113.9	104.8	102.6
PNLT	41.0	102.1	38.0	115.0	45.0	115.1	106.1	103.9
A-LEV	41.5	89.2	44.0	102.7	45.5	102.8	93.9	91.0
N-LEV	41.5	101.5	38.0	114.4	45.5	114.5	105.5	103.3

EPNL =105.0

## MAN ACOUSTICS, EVENT #10

T	PNI	P.T.	PNLT	DA	A-LEV	D-LEV	N-LEV	BAND #
0.0	48.2	1.5	49.7	53.2	43.2	50.3	57.3	0.2
0.5	53.0	1.5	54.5	53.3	45.0	52.7	59.7	0.2
1.0	53.6	1.3	54.9	53.9	45.3	53.0	60.0	0.2
1.5	63.4	0.8	64.2	58.3	54.0	58.7	65.7	0.2
2.0	69.5	1.8	71.3	62.4	59.0	63.5	70.5	1.7
2.5	72.5	2.2	74.7	64.5	62.0	66.5	73.5	1.7
3.0	74.2	2.2	76.4	65.9	63.4	68.2	75.2	1.7
3.5	76.5	2.6	79.1	67.7	65.8	70.6	77.6	1.7
4.0	78.7	2.6	81.3	70.0	68.4	72.9	79.9	1.7
4.5	81.3	2.3	83.6	72.5	70.7	75.2	82.2	1.7
5.0	86.7	2.1	88.8	77.7	75.8	80.4	87.4	1.7
5.5	91.7	2.9	94.6	81.6	80.2	85.5	92.5	1.7
6.0	93.8	3.4	97.2	83.0	82.0	87.7	94.7	1.7
6.5	93.7	3.0	96.7	83.1	82.1	87.6	94.6	1.7
7.0	94.0	2.8	96.8	83.2	82.2	87.9	94.9	1.7
7.5	94.3	2.6	96.9	83.4	82.4	88.1	95.1	1.7
8.0	94.8	2.9	97.7	83.5	82.8	88.8	95.8	1.7
8.5	94.9	2.9	97.8	83.8	83.1	88.9	95.9	1.7
9.0	95.5	2.6	98.1	84.5	83.9	89.6	96.6	1.7
9.5	95.6	2.4	98.0	84.6	83.9	89.7	96.7	1.7
10.0	95.8	2.0	97.8	84.8	84.1	89.8	96.8	1.7
10.5	96.0	1.9	97.9	85.0	84.2	90.0	97.0	1.7
11.0	96.0	1.7	97.7	85.2	84.0	89.9	96.9	1.7
11.5	96.6	1.9	98.5	85.6	84.3	90.4	97.4	1.7
12.0	98.1	1.6	99.7	86.7	85.9	92.0	99.0	1.7
12.5	100.0	1.7	101.7	88.5	88.1	94.1	101.1	1.7
13.0	100.0	1.6	101.6	88.6	87.9	93.9	100.9	1.7
13.5	100.1	1.7	101.8	88.5	87.7	93.9	100.9	1.7
14.0	100.4	1.8	102.2	88.4	88.0	94.4	101.4	1.7
14.5	101.7	1.8	103.5	89.5	89.3	95.9	102.9	1.7
15.0	102.3	2.1	104.4	89.8	89.8	96.5	103.5	1.7
15.5	102.0	2.1	104.1	89.4	89.5	96.4	103.4	1.7
16.0	102.1	2.1	104.2	89.4	89.6	96.7	103.7	1.7
16.5	102.8	2.0	104.8	90.0	90.4	97.6	104.6	1.7
17.0	102.8	1.8	104.6	90.0	90.3	97.5	104.5	1.7
17.5	102.9	1.7	104.6	90.3	90.7	97.9	104.9	2.4
18.0	102.8	1.2	104.0	90.4	90.7	98.0	105.0	2.4
18.5	102.6	1.1	103.7	90.2	90.4	97.8	104.8	2.4
19.0	103.1	0.6	103.7	90.6	90.8	98.3	105.3	2.4
19.5	102.9	0.6	103.5	90.6	90.7	98.2	105.2	0.3
20.0	102.8	0.5	103.3	90.6	90.6	98.0	105.0	0.3
20.5	102.7	0.0	102.7	90.7	90.6	97.9	104.9	0.1
21.0	102.7	0.0	102.7	90.8	90.6	97.7	104.7	0.1
21.5	102.6	1.0	103.6	91.1	90.6	97.4	104.4	1.6
22.0	103.6	1.7	105.3	91.9	91.5	98.0	105.0	1.6
22.5	104.0	1.9	105.9	92.3	91.9	98.3	105.3	1.6
23.0	104.0	1.7	105.7	92.4	91.9	98.3	105.3	1.6
23.5	103.8	1.3	105.1	92.5	91.8	98.2	105.2	1.6
24.0	103.9	1.2	105.1	92.6	92.0	98.3	105.3	1.6
24.5	103.6	0.0	103.6	92.6	91.9	98.1	105.1	0.1
25.0	103.4	0.0	103.4	92.7	92.0	98.0	105.0	0.1
25.5	102.9	1.1	104.0	92.3	91.5	97.4	104.4	1.5
26.0	102.4	1.1	103.5	91.9	90.9	96.8	103.8	1.5
26.5	101.9	1.2	103.1	91.4	90.7	96.4	103.4	1.5
27.0	101.5	1.5	103.0	91.5	91.0	96.2	103.2	1.5
27.5	100.6	1.5	102.1	90.9	90.3	95.4	102.4	1.5
28.0	100.0	1.5	101.5	90.4	89.6	94.7	101.7	2.4
28.5	99.7	1.5	101.2	89.6	88.7	94.0	101.0	2.4
29.0	99.0	1.5	100.5	89.1	88.2	93.5	100.5	2.4

29.5	98.3	1.5	99.8	88.6	87.5	92.6	99.6	1.5
30.0	97.4	2.1	99.5	88.2	86.7	91.6	98.6	1.5
30.5	96.7	1.4	98.3	87.8	85.7	90.8	97.8	1.5
31.0	96.4	1.3	97.7	87.4	85.0	90.2	97.2	1.5
31.5	95.3	1.2	96.5	87.0	83.9	89.0	96.0	1.5
32.0	94.4	1.2	95.6	86.5	82.9	87.9	94.9	1.5
32.5	93.7	1.3	95.2	86.6	82.3	87.3	94.3	1.5
33.0	93.6	1.5	95.1	86.8	82.4	87.1	94.1	1.5
33.5	93.8	1.8	95.6	86.8	82.6	87.1	94.1	1.5
34.0	93.5	1.5	95.0	86.3	82.7	87.1	94.1	1.5
34.5	93.2	1.3	94.5	86.2	82.5	86.8	93.8	1.5
35.0	92.7	0.6	93.3	85.8	81.9	86.3	93.3	1.0
35.5	92.4	0.0	92.4	85.5	81.3	85.9	92.9	0.1
36.0	92.0	0.0	92.0	85.1	81.0	85.5	92.5	0.1
36.5	91.3	0.0	91.3	84.7	80.2	84.8	91.8	0.1
37.0	90.6	0.0	90.6	84.6	79.6	84.1	91.1	0.1
37.5	90.0	0.0	90.0	84.2	79.1	83.5	90.5	0.1
38.0	89.8	0.0	89.8	84.5	78.8	83.3	90.3	0.1
38.5	89.6	0.0	89.6	84.4	78.5	83.0	90.0	0.1
39.0	89.7	0.0	89.7	84.2	78.9	83.3	90.3	0.1
39.5	89.7	1.7	91.4	84.0	78.8	83.1	90.1	1.5
40.0	89.3	1.5	90.8	84.0	78.3	82.7	89.7	1.5
40.5	89.2	1.6	90.8	83.8	78.1	82.5	89.5	1.5
41.0	89.1	1.7	90.8	84.1	78.0	82.4	89.4	1.5
41.5	88.9	1.2	90.1	83.9	77.7	82.1	89.1	1.5
42.0	88.9	1.1	90.0	84.2	77.6	82.1	89.1	1.5
42.5	89.0	1.1	90.1	84.3	77.9	82.3	89.3	1.5
43.0	89.1	1.3	90.4	84.0	78.2	82.3	89.3	1.5
43.5	88.8	1.5	90.3	83.3	78.1	82.0	89.0	1.5
44.0	87.7	1.5	89.2	82.2	77.1	80.9	87.9	1.5
44.5	86.1	1.4	87.5	80.7	75.6	79.4	86.4	1.5
45.0	84.1	1.4	85.5	79.0	73.7	77.5	84.5	1.5
45.5	81.7	1.5	83.2	77.0	71.6	75.4	82.4	1.5
46.0	79.8	1.4	81.2	75.2	69.6	73.5	80.5	1.5

MAXIMUM VALUES IN BANDS, PNLC =106.0

	50	63	80	100	125	160	200	250	315	400
	78.5	77.1	78.3	78.1	75.4	78.5	81.6	83.1	80.1	79.7
	78.5	78.7	78.1	81.1	86.3	87.1	86.0	81.1	80.1	79.5
	73.3	66.3	57.1	46.0						

SPECTRUM FOR MAX PNLT

69.0	68.0	67.6	69.6	72.7	78.2	79.4	79.9	79.1	76.6
77.9	76.4	77.1	78.6	82.2	87.1	80.8	80.7	79.7	74.4
71.2	64.0	54.1	45.4						

	TIME	MAX.	D10	I-10	D20	I-20	D/15+M	D/30+M
P. T.	6.0	3.4						
PNL	22.5	104.0	25.5	115.2	41.0	115.4	105.3	105.4
PNLT	22.5	105.9	26.5	116.6	40.5	116.8	108.4	107.2
A-LEV	24.0	92.0	29.0	103.4	41.0	103.6	94.9	93.4
N-LEV	19.0	105.3	24.5	116.7	40.5	116.9	107.4	106.6

EPNL =106.6

A-90

## MAN ACOUSTICS, EVENT #11

T	PNL	P. T.	PNLT	DA	A-LEV	D-LEV	N-LEV	BAND #
0.0	70.1	0.8	70.9	61.2	58.0	63.4	70.4	0.2
0.5	72.2	0.5	72.7	62.9	60.1	65.5	72.5	0.2
1.0	75.4	1.2	76.6	65.4	63.2	68.8	75.8	1.1
1.5	79.8	1.4	81.2	69.8	68.4	73.5	80.5	1.1
2.0	83.6	1.3	84.9	73.4	72.2	77.5	84.5	1.1
2.5	88.2	2.0	90.2	77.9	76.7	82.5	89.5	1.9
3.0	90.7	2.5	93.2	80.4	79.1	85.3	92.3	1.9
3.5	92.2	2.8	95.0	81.9	80.8	87.0	94.0	1.9
4.0	93.2	2.8	96.0	82.6	81.5	87.9	94.9	1.9
4.5	94.4	3.4	97.8	82.6	81.4	88.5	95.5	1.9
5.0	95.8	3.7	99.5	83.1	82.1	89.7	96.7	1.9
5.5	97.3	3.7	101.0	83.7	83.1	91.4	98.4	1.9
6.0	97.0	3.7	100.7	83.6	82.6	90.9	97.9	1.9
6.5	97.3	3.6	100.9	83.8	82.8	91.2	98.2	1.9
7.0	98.5	3.9	102.4	84.5	83.9	92.6	99.6	1.9
7.5	98.8	3.9	102.7	84.7	84.3	93.0	100.0	1.9
8.0	99.6	3.9	103.5	85.4	85.1	93.8	100.8	1.9
8.5	100.7	4.0	104.9	86.4	86.6	95.4	102.4	1.9
9.0	101.7	4.5	106.2	87.0	87.4	96.5	103.5	1.9
9.5	102.0	4.7	106.7	87.3	87.8	96.8	103.8	1.9
10.0	102.1	4.5	106.6	87.6	87.9	96.7	103.7	1.9
10.5	103.0	4.6	107.6	88.3	88.7	97.6	104.6	1.9
11.0	102.9	4.5	107.4	88.2	88.6	97.5	104.5	1.9
11.5	102.8	4.3	107.1	88.1	88.5	97.4	104.4	1.9
12.0	103.2	4.0	107.2	88.5	88.9	97.8	104.8	1.9
12.5	103.5	3.7	107.2	88.9	89.4	98.3	105.3	1.9
13.0	103.8	3.8	107.6	89.7	90.2	99.1	106.1	1.9
13.5	104.0	2.4	106.4	89.8	90.4	99.2	106.2	1.8
14.0	104.7	2.8	107.5	90.2	90.8	99.6	106.6	1.8
14.5	105.3	3.2	108.5	90.6	91.3	100.0	107.0	1.8
15.0	105.6	3.2	108.8	90.9	91.6	100.3	107.3	1.8
15.5	105.9	4.0	109.9	91.3	92.1	100.8	107.8	1.8
16.0	105.9	4.0	109.9	91.5	92.4	100.8	107.8	1.8
16.5	105.9	4.2	110.1	91.6	92.5	101.0	108.0	1.8
17.0	105.5	4.2	109.7	91.2	92.0	100.4	107.4	1.8
17.5	104.6	3.9	108.5	90.4	91.0	99.4	106.4	1.8
18.0	103.2	3.6	106.8	89.1	89.4	97.7	104.7	1.8
18.5	102.5	3.5	106.0	88.6	88.7	96.8	103.8	1.8
19.0	101.7	3.2	104.9	88.2	88.0	95.9	102.9	1.8
19.5	101.0	3.4	104.4	87.7	87.2	95.1	102.1	1.8
20.0	100.3	3.7	104.0	87.3	86.6	94.5	101.5	1.8
20.5	99.7	3.7	103.4	86.9	86.1	94.0	101.0	1.8
21.0	98.3	3.5	101.8	86.5	84.6	92.4	99.4	1.8
21.5	97.3	1.7	99.0	86.8	83.5	91.2	98.2	1.8
22.0	96.8	1.8	98.6	86.9	83.1	90.9	97.9	1.7
22.5	96.3	1.8	98.1	86.6	82.6	90.3	97.3	1.7
23.0	95.6	1.7	97.3	86.5	81.7	89.3	96.3	1.8
23.5	94.8	1.7	96.5	86.2	80.8	88.3	95.3	1.8
24.0	94.5	1.7	96.2	86.2	80.3	87.9	94.9	1.8
24.5	93.9	1.8	95.7	86.2	80.0	87.4	94.4	1.8
25.0	93.4	1.7	95.1	86.8	79.4	86.6	93.6	1.8
25.5	92.8	1.8	94.6	86.5	79.1	86.1	93.1	1.7
26.0	92.9	1.9	94.8	86.1	79.3	86.2	93.2	1.7
26.5	93.4	2.2	95.6	85.8	79.9	86.9	93.9	1.7
27.0	93.0	2.0	95.0	85.5	79.4	86.5	93.5	1.7
27.5	92.7	2.1	94.8	85.6	78.9	86.0	93.0	1.7
28.0	92.2	1.8	94.0	85.5	78.5	85.4	92.4	1.7
28.5	92.0	1.8	93.8	85.4	78.4	85.1	92.1	1.7
29.0	92.0	1.9	93.9	85.3	78.5	85.2	92.2	1.7

MAXIMUM VALUES IN BANDS. PNLC =107.4

50	63	80	100	125	160	200	250	315	400
77.8	80.8	81.1	80.1	73.6	74.1	75.0	75.2	71.9	72.8
73.4	71.7	72.5	73.0	76.1	78.6	84.5	89.3	85.3	76.2
77.6	68.5	63.0	50.2						

SPECTRUM FOR MAX PNLT

63.7	63.4	63.0	66.3	66.1	73.0	73.5	71.4	70.0	72.0
69.0	71.1	70.3	72.1	75.1	74.7	84.5	89.1	77.0	75.7
77.2	67.7	61.9	49.8						

	TIME	MAX.	D10	I-10	D20	I-20	D/15+M	D/30+M
P. T.	9.5	4.7						
PNL	15.5	105.9	18.0	115.1	27.0	115.3	106.7	105.4
PNLT	16.5	110.1	16.5	118.8	27.0	119.0	110.5	109.6
A-LEV	16.5	92.5	18.0	101.2	27.0	101.5	93.3	92.0
N-LEV	16.5	108.0	16.0	116.7	27.0	116.9	108.3	107.5

EPNL =108.8



## MAN ACOUSTICS, EVENT #12

T	PNL	P.T.	PNLT	OA	A-LEV	D-LEV	N-LEV	BAND #
0.0	81.1	1.5	82.6	78.3	68.0	74.1	81.1	0.4
0.5	86.4	1.9	88.3	84.5	71.6	78.8	85.8	0.4
1.0	89.1	1.8	90.9	87.2	74.3	81.5	88.5	0.4
1.5	89.5	1.5	91.0	87.1	76.2	82.4	89.4	0.4
2.0	87.2	0.8	90.0	86.0	76.6	82.5	89.5	0.4
2.5	87.8	1.1	90.9	85.7	77.1	82.8	89.8	0.6
3.0	95.4	6.7	102.1	86.6	80.3	88.3	95.3	1.9
3.5	91.6	1.6	93.2	87.4	78.6	84.4	91.4	0.4
4.0	93.6	1.9	95.5	89.8	80.0	86.1	93.1	0.4
4.5	93.9	1.6	95.5	89.9	81.0	86.7	93.7	0.4
5.0	93.9	1.4	95.3	89.6	82.1	87.4	94.4	0.4
5.5	94.4	1.0	95.4	89.3	82.7	87.7	94.7	0.2
6.0	95.0	0.9	95.9	89.6	83.7	88.4	95.4	0.4
6.5	96.5	1.0	97.5	90.1	85.2	89.7	96.7	0.7
7.0	97.9	1.1	99.0	91.3	86.5	90.7	97.7	0.7
7.5	98.2	0.9	99.1	92.2	87.0	91.3	98.3	0.7
8.0	98.7	0.8	99.5	93.1	87.4	91.9	98.9	2.4
8.5	98.8	1.6	100.4	93.8	87.4	92.0	99.0	0.3
9.0	99.0	2.2	101.2	94.4	87.1	92.1	99.1	0.3
9.5	98.0	2.5	100.5	93.9	85.9	91.2	98.2	0.3
10.0	97.0	2.7	99.7	93.2	85.0	90.3	97.3	0.3
10.5	96.4	2.7	99.1	92.4	84.1	89.6	96.6	0.3
11.0	96.2	2.6	98.8	92.0	83.7	89.5	96.5	0.3
11.5	96.5	2.4	98.9	91.7	83.4	89.5	96.5	0.3
12.0	95.4	2.1	97.5	90.3	82.9	88.8	95.8	0.3
12.5	94.7	1.9	96.6	89.1	82.4	88.2	95.2	0.3
13.0	94.6	1.7	96.3	87.8	82.6	88.0	95.0	0.3
13.5	94.3	1.5	95.8	86.9	82.4	87.6	94.6	0.3
14.0	93.8	1.4	95.2	87.1	82.0	87.2	94.2	0.3
14.5	93.6	1.2	94.8	87.5	81.9	87.1	94.1	0.3
15.0	93.4	1.4	94.8	87.7	81.6	86.8	93.8	0.3
15.5	93.2	1.7	94.9	87.4	81.7	86.6	93.6	0.3
16.0	93.6	2.0	95.6	87.6	81.6	86.6	93.6	0.3
16.5	92.7	2.0	94.7	86.9	81.3	86.1	93.1	0.3
17.0	92.5	2.0	94.5	86.7	81.0	85.7	92.7	0.3
17.5	91.6	1.9	93.5	86.1	80.5	85.1	92.1	0.3
18.0	91.6	1.9	93.5	86.3	80.1	84.6	91.6	0.3
18.5	92.2	1.8	94.0	87.4	79.7	84.7	91.7	0.3
19.0	92.4	1.5	93.9	87.9	79.4	84.8	91.8	0.3
19.5	91.6	1.1	92.7	87.3	78.5	84.0	91.0	0.3
20.0	90.4	1.4	91.8	86.9	77.3	83.0	90.0	0.3
20.5	90.7	1.4	92.1	86.7	77.2	83.1	90.1	0.3
21.0	90.0	1.3	91.3	86.1	76.6	82.6	89.6	0.3

MAXIMUM VALUES IN BANDS, PNLC =101.5

50	63	80	100	125	160	200	250	315	400
68.5	79.9	89.7	87.6	85.9	87.5	85.2	85.0	85.1	84.3
82.2	81.0	79.4	77.0	75.4	74.0	72.5	69.8	75.7	61.9
56.4	49.7	43.5	43.1						

SPECTRUM FOR MAX PNLT

64.3	70.5	77.1	82.0	73.8	78.7	70.0	68.4	72.2	72.6
68.4	67.6	68.8	68.4	68.9	65.5	65.0	60.9	75.7	50.3
42.4	40.9	41.7	42.9						

A-93

TIME MAX D10 I-10 D20 I-20 D/15+M D/30+M



P. T.	3.0	6.7						
PNL	9.0	99.0	20.5	107.9	21.0	107.9	100.4	97.5
PNLT	3.0	102.1	17.5	109.7	21.0	109.9	102.8	100.6
A-LEV	8.0	87.4	17.5	95.8	21.0	95.9	88.1	85.9
N-LEV	9.0	99.1	20.0	108.0	21.0	108.0	100.3	97.6

EPNL = 99.7

## MAN ACOUSTICS, EVENT #13

T	PNL	P.T.	PNLT	OA	A-LEV	D-LEV	N-LEV	BAND #
0.0	74.7	2.3	77.0	71.2	62.7	68.1	75.1	0.4
0.5	75.8	2.4	78.2	72.7	63.1	68.9	75.9	0.4
1.0	77.3	2.4	79.7	74.1	64.4	70.2	77.2	0.4
1.5	82.2	2.4	84.6	78.1	70.6	75.5	82.5	0.4
2.0	88.0	2.8	90.8	84.9	74.5	80.4	87.4	0.4
2.5	89.6	2.9	92.5	86.2	76.6	82.1	89.1	0.4
3.0	90.3	2.6	92.9	86.2	77.7	83.3	90.3	0.4
3.5	90.8	2.6	93.4	86.3	78.8	84.0	91.0	0.4
4.0	91.6	2.8	94.4	87.6	78.9	84.6	91.6	0.4
4.5	92.6	3.0	95.6	88.3	79.7	85.7	92.7	0.4
5.0	93.4	3.1	96.5	88.5	81.2	86.9	93.9	0.4
5.5	93.2	2.8	96.0	87.8	81.2	86.7	93.7	0.4
6.0	93.7	2.7	96.4	88.8	81.4	87.1	94.1	0.4
6.5	94.5	2.2	96.7	89.2	82.0	87.5	94.5	2.4
7.0	94.8	2.3	97.1	89.8	82.2	88.0	95.0	2.4
7.5	95.7	2.2	97.9	90.4	82.8	88.8	95.8	2.4
8.0	96.0	2.4	98.4	90.3	83.0	89.2	96.2	2.4
8.5	96.7	2.6	99.5	91.3	83.5	89.8	96.8	2.4
9.0	97.2	2.5	99.7	91.9	83.7	90.0	97.0	2.4
9.5	98.3	2.5	100.8	92.4	84.4	90.7	97.7	2.4
10.0	99.1	2.4	101.5	93.7	85.1	91.5	98.5	2.4
10.5	98.6	2.4	101.0	94.2	84.9	91.5	98.5	0.6
11.0	98.5	2.7	101.2	93.8	84.6	91.3	98.3	2.4
11.5	98.7	2.7	101.4	93.9	84.9	91.5	98.5	2.4
12.0	98.4	2.5	100.9	94.1	84.2	91.0	98.0	2.4
12.5	97.6	2.5	100.1	94.1	83.4	90.4	97.4	2.4
13.0	97.8	2.1	99.9	94.6	83.1	90.3	97.3	2.4
13.5	97.4	1.9	99.3	94.1	82.7	89.9	96.9	0.6
14.0	96.7	1.9	98.6	93.3	82.3	89.2	96.2	0.5
14.5	95.9	1.8	97.7	92.0	82.4	88.6	95.6	0.5
15.0	94.7	1.8	96.7	90.5	81.9	87.8	94.8	2.1
15.5	93.8	1.6	95.4	90.1	81.0	86.9	93.9	0.2
16.0	93.5	1.6	95.1	89.9	80.5	86.5	93.5	0.2
16.5	92.8	1.5	94.3	89.5	79.3	85.8	92.8	0.2
17.0	92.1	1.5	93.6	88.7	79.3	85.2	92.2	0.2
17.5	91.6	1.5	93.1	87.4	79.5	84.8	91.8	2.0
18.0	91.3	1.5	92.8	87.0	79.0	84.4	91.4	2.0
18.5	90.7	1.7	92.4	87.1	78.5	84.0	91.0	2.0
19.0	90.2	1.7	91.9	87.0	78.1	83.6	90.6	0.2
19.5	90.0	1.6	91.6	86.9	77.8	83.2	90.2	0.2
20.0	89.7	1.4	91.1	86.8	77.3	82.8	89.8	0.2
20.5	89.5	1.4	90.9	86.6	76.7	82.2	89.2	0.2
21.0	89.2	1.6	90.8	86.9	76.3	82.0	89.0	0.2
21.5	88.5	1.7	90.2	86.6	76.0	81.7	88.7	0.2
22.0	88.5	1.6	90.1	86.8	75.8	81.5	88.5	0.2
22.5	88.3	1.7	90.0	86.9	75.1	81.0	88.0	0.2
23.0	87.8	1.7	89.5	86.3	74.9	80.8	87.8	0.2
23.5	87.3	1.4	88.7	85.3	74.7	80.4	87.4	0.2

MAXIMUM VALUES IN BANDS, PNLC =101.1

50	63	80	100	125	160	200	250	315	400
72.2	84.9	90.5	85.8	86.6	91.0	83.3	89.8	79.2	78.2
74.6	73.4	73.5	74.4	72.7	72.1	72.0	70.4	66.4	65.6
65.7	58.4	42.7	43.1						

SPECTRUM FOR MAX PNLT

A-95

65.1	68.0	84.3	74.7	75.6	88.7	78.7	89.8	77.6	77.9
74.2	73.3	71.9	71.6	71.3	70.5	70.4	68.6	65.2	61.9
64.0	56.7	42.6	43.1						

	TIME	MAX.	D10	I-10	D20	I-20	D/15+M	D/30+M
P.T.	5.0	3.1						
PNL	10.0	79.1	19.5	108.0	22.5	108.1	100.2	97.9
PNLT	10.0	101.5	18.0	110.3	22.5	110.4	102.3	100.3
A-LEV	10.0	85.1	20.5	94.6	22.5	94.7	86.5	83.9
N-LEV	10.0	98.5	20.0	107.9	22.5	108.0	99.7	97.3

EPNL =100.3

## MAN ACOUSTICS, EVENT #14

T	PNL	P.T.	PNLT	DA	A-LEV	D-LEV	N-LEV	BAND #
0.0	72.0	0.0	72.0	69.1	61.1	66.3	73.3	0.1
0.5	74.0	0.0	74.0	70.2	63.1	67.8	74.8	0.1
1.0	76.1	0.0	76.1	71.8	65.8	70.0	77.0	0.1
1.5	78.2	0.0	78.2	73.9	68.0	72.0	79.0	0.1
2.0	82.0	0.9	82.9	77.5	72.2	75.9	82.9	0.4
2.5	84.7	1.2	85.9	80.3	74.9	78.5	85.5	0.4
3.0	87.0	0.9	87.9	81.9	76.3	80.2	87.2	0.4
3.5	87.8	0.0	87.8	83.0	77.8	81.2	88.2	0.1
4.0	88.7	0.0	88.7	83.8	78.8	82.1	89.1	0.1
4.5	88.5	0.0	88.5	84.2	78.6	81.9	88.9	0.1
5.0	88.1	0.0	88.1	84.5	77.8	81.4	88.4	0.1
5.5	87.3	0.0	87.3	84.9	76.7	80.7	87.7	0.1
6.0	87.3	1.2	88.5	85.3	76.1	80.5	87.5	1.1
6.5	87.4	1.2	88.6	85.9	76.1	80.8	87.8	1.1
7.0	87.1	0.6	87.7	86.5	75.6	80.8	87.8	0.2
7.5	87.0	0.8	87.8	87.1	75.2	80.9	87.9	0.2
8.0	87.0	0.8	87.8	87.5	74.6	80.7	87.7	0.4
8.5	87.2	0.9	88.1	87.9	74.0	80.7	87.7	0.4
9.0	87.3	0.9	88.2	88.4	73.6	80.8	87.8	0.4
9.5	87.2	0.8	88.0	88.7	73.4	80.7	87.7	0.4
10.0	87.7	0.7	88.4	89.0	74.1	81.2	88.2	0.4
10.5	88.1	1.0	89.1	89.0	75.4	81.8	88.8	1.4
11.0	88.3	1.1	89.4	89.1	76.0	82.2	89.2	1.4
11.5	89.0	0.7	89.7	89.2	76.5	82.7	89.7	0.4
12.0	89.3	0.6	89.9	89.2	76.7	82.8	89.8	0.4
12.5	89.8	0.8	90.6	89.2	77.4	83.2	90.2	0.8
13.0	90.5	1.0	91.5	89.5	78.5	84.0	91.0	0.8
13.5	91.2	1.2	92.4	89.4	79.0	84.3	91.3	1.3
14.0	91.0	1.3	92.3	89.7	78.7	84.2	91.2	1.3
14.5	90.8	1.1	91.9	89.9	78.5	84.2	91.2	1.3
15.0	91.1	0.9	92.0	89.9	78.4	84.2	91.2	0.4
15.5	91.7	1.1	92.8	89.6	78.9	84.5	91.5	0.8
16.0	91.7	0.9	92.6	89.2	78.8	84.4	91.4	0.4
16.5	91.7	1.0	92.7	89.2	78.6	84.3	91.3	0.8
17.0	92.7	0.9	93.6	89.3	79.6	85.2	92.2	0.8
17.5	94.2	0.8	95.0	89.6	81.1	86.5	93.5	0.4
18.0	94.8	1.3	96.1	90.0	81.9	87.4	94.4	1.1
18.5	95.3	1.3	96.6	90.4	82.7	88.1	95.1	1.1
19.0	95.6	1.0	96.6	90.8	83.1	88.5	95.5	0.7
19.5	96.2	1.2	97.4	91.4	83.5	89.0	96.0	0.7
20.0	96.9	1.2	98.1	92.2	84.1	89.8	96.8	0.7
20.5	97.6	0.7	98.3	92.8	84.7	90.3	97.3	0.7
21.0	98.0	0.8	98.8	93.4	85.1	90.9	97.9	0.7
21.5	98.1	0.6	98.7	93.9	85.4	91.2	98.2	2.4
22.0	98.1	0.6	98.7	94.4	85.7	91.5	98.5	0.9
22.5	98.2	0.6	98.8	94.9	85.6	91.7	98.7	2.4
23.0	98.5	0.9	99.4	95.1	85.5	91.7	98.7	0.4
23.5	98.5	1.3	99.8	95.2	85.2	91.5	98.5	0.4
24.0	98.1	1.4	99.5	95.1	84.5	91.1	98.1	0.4
24.5	97.9	1.2	99.1	95.0	83.8	90.7	97.7	0.4
25.0	97.5	1.0	98.5	94.6	83.4	90.3	97.3	0.4
25.5	97.0	0.7	97.7	93.8	83.0	89.7	96.7	0.8
26.0	96.5	0.7	97.2	92.7	82.7	89.1	96.1	2.4
26.5	95.6	0.8	96.4	91.1	82.4	88.4	95.4	2.4
27.0	94.7	0.8	95.5	89.9	82.0	87.6	94.6	2.4
27.5	93.8	1.0	94.8	89.0	81.4	86.9	93.9	1.5
28.0	93.6	1.1	94.7	88.3	81.3	86.5	93.5	1.5
28.5	93.2	1.3	94.5	87.6	81.1	86.1	93.1	1.5
29.0	93.0	1.3	94.3	87.0	80.6	85.8	92.8	1.5

29.5	92.2	1.3	93.5	86.8	79.9	85.1	92.1	1.5
30.0	91.5	1.2	92.7	86.7	79.0	84.5	91.5	1.5
30.5	91.1	1.0	92.1	86.4	78.9	84.2	91.2	1.5
31.0	90.4	1.3	91.7	86.1	78.4	83.5	90.5	1.5
31.5	90.1	1.1	91.2	86.5	78.1	83.3	90.3	1.1
32.0	89.9	1.0	90.9	86.6	77.9	83.1	90.1	1.5
32.5	89.4	1.4	90.8	86.6	77.4	82.7	89.7	1.5
33.0	89.0	1.6	90.6	86.4	77.0	82.3	89.3	1.5
33.5	88.9	1.2	90.1	86.8	76.8	82.2	89.2	1.5
34.0	89.0	0.8	89.8	86.8	76.7	82.2	89.2	0.3
34.5	88.9	0.9	89.8	86.6	76.3	81.9	88.9	0.3
35.0	88.7	1.4	90.1	86.6	76.2	81.7	88.7	1.5
35.5	88.6	1.5	90.1	86.6	76.1	81.6	88.6	1.5
36.0	88.4	1.5	89.9	86.6	75.9	81.4	88.4	1.5
36.5	88.1	1.3	89.4	86.1	75.5	81.2	88.2	1.5
37.0	87.8	1.3	89.1	85.5	75.5	81.1	88.1	0.6
37.5	87.2	1.4	88.6	84.9	74.9	80.6	87.6	0.6
38.0	87.4	1.6	89.0	85.3	74.7	80.7	87.7	0.6
38.5	87.6	1.5	89.1	85.4	75.0	80.9	87.9	0.6
39.0	87.3	1.4	88.7	85.3	75.2	80.9	87.9	0.6
39.5	87.3	1.3	88.6	85.4	75.2	80.8	87.8	0.6
40.0	87.2	1.3	88.5	84.8	75.9	80.8	87.8	0.6

MAXIMUM VALUES IN BANDS. PNLC = 100.9

50	63	80	100	125	160	200	250	315	400
86.8	82.7	84.7	90.8	89.0	88.6	89.2	86.0	85.0	82.2
78.1	76.2	76.3	73.5	74.3	71.3	69.7	67.7	65.2	61.4
57.7	53.3	46.4	43.7						

SPECTRUM FOR MAX PNLT

76.3	72.3	79.5	90.4	88.2	86.2	82.5	86.0	81.9	79.3
75.7	76.0	74.9	73.5	73.3	71.0	69.0	66.3	62.7	59.4
54.8	50.0	45.0	43.3						

	TIME	MAX.	D10	I-10	D20	I-20	D/15+M	D/30+M
P.T.	33.0	1.6						
PNL	23.0	98.5	25.0	108.4	38.5	108.9	100.7	99.6
PNLT	23.5	99.8	22.5	109.3	38.5	109.8	101.6	100.9
A-LEV	22.0	85.7	26.0	95.6	39.5	96.1	88.1	86.9
N-LEV	22.5	98.7	25.0	108.4	39.0	108.9	100.9	99.8

EPNL = 99.3

## MAN ACOUSTICS, EVENT #15

T	PNL	P. T.	PNLT	QA	A-LEV	D-LEV	N-LEV	BAND #
0.0	81.4	0.6	82.0	78.6	69.0	74.5	81.5	0.4
0.5	83.5	0.0	83.5	81.1	70.8	76.5	83.5	0.1
1.0	84.9	0.6	85.5	82.8	72.2	77.9	84.9	0.4
1.5	85.5	0.0	85.5	83.4	73.1	78.6	85.6	0.1
2.0	85.5	0.0	85.5	83.7	73.3	78.8	85.8	0.1
2.5	85.1	0.0	85.1	84.1	72.7	78.5	85.5	0.1
3.0	84.6	0.0	84.6	84.4	72.2	78.3	85.3	0.1
3.5	84.2	0.0	84.2	84.3	71.8	77.9	84.9	0.1
4.0	84.0	0.0	84.0	84.4	71.6	77.7	84.7	0.1
4.5	84.1	0.0	84.1	84.8	71.2	77.8	84.8	0.1
5.0	84.1	0.0	84.1	85.1	70.9	77.9	84.9	0.1
5.5	84.3	0.0	84.3	85.2	71.0	78.0	85.0	0.1
6.0	84.3	0.0	84.3	85.5	70.9	78.1	85.1	0.1
6.5	84.4	0.0	84.4	85.6	71.0	78.2	85.2	0.1
7.0	84.6	0.6	85.2	85.8	71.2	78.3	85.3	0.3
7.5	84.3	0.6	84.9	85.7	70.7	78.0	85.0	0.3
8.0	84.8	0.8	85.6	85.5	71.3	78.3	85.3	0.3
8.5	86.1	0.8	86.9	85.4	72.8	79.1	86.1	0.3
9.0	86.7	0.8	87.5	85.4	73.7	79.5	86.5	0.3
9.5	86.9	0.9	87.8	85.5	74.0	79.6	86.6	0.3
10.0	87.0	1.1	88.1	85.7	73.9	79.8	86.8	0.3
10.5	86.7	1.3	88.0	85.7	73.8	79.6	86.6	1.3
11.0	85.8	1.6	87.4	85.7	73.2	79.0	86.0	1.3
11.5	84.8	1.2	86.0	85.6	72.2	78.4	85.4	0.3
12.0	84.6	1.2	85.8	85.4	71.8	78.1	85.1	0.3
12.5	84.7	1.2	85.9	85.0	72.2	78.3	85.3	0.3
13.0	85.3	1.2	86.5	84.9	73.4	78.9	85.9	0.3
13.5	86.2	1.2	87.4	84.9	73.8	79.4	86.4	0.3
14.0	86.4	1.2	87.6	84.7	74.2	79.6	86.6	0.3
14.5	86.1	1.2	87.3	84.5	74.3	79.5	86.5	0.3
15.0	85.5	1.5	87.0	84.6	73.7	79.2	86.2	0.3
15.5	86.3	1.3	87.6	85.0	74.0	79.3	86.8	0.3
16.0	86.8	1.2	88.0	85.4	74.3	80.3	87.3	0.3
16.5	87.1	1.3	88.4	85.9	74.5	80.5	87.5	0.3
17.0	86.8	1.4	88.2	85.9	74.1	80.3	87.3	0.3
17.5	86.9	1.5	88.4	86.0	74.0	80.4	87.4	0.3
18.0	87.2	1.4	88.6	86.0	74.3	80.5	87.5	0.3
18.5	87.3	1.3	88.6	85.7	74.6	80.6	87.6	0.3
19.0	87.4	1.0	88.4	85.5	74.9	80.8	87.8	0.3
19.5	87.6	0.8	88.4	85.7	74.8	80.8	87.8	0.3
20.0	87.9	0.9	88.8	86.1	75.0	81.0	88.0	0.3
20.5	88.0	1.0	89.0	86.1	75.5	81.3	88.3	0.3
21.0	88.2	0.9	89.1	86.0	76.1	81.6	88.6	0.3
21.5	88.2	2.0	90.2	85.9	76.3	81.7	88.7	1.1
22.0	88.5	0.8	89.3	85.8	76.5	81.7	88.7	0.3
22.5	88.3	0.9	89.2	85.8	76.3	81.6	88.6	0.3
23.0	88.2	1.1	89.3	85.8	76.2	81.5	88.5	1.4
23.5	88.2	0.8	89.0	85.7	76.3	81.4	88.4	0.3
24.0	88.2	1.1	89.3	85.6	76.4	81.4	88.4	1.4
24.5	88.6	1.0	89.6	85.6	77.0	81.8	88.8	1.4
25.0	89.0	1.0	90.0	86.0	77.5	82.2	89.2	1.4
25.5	89.3	0.6	89.9	86.2	77.8	82.4	89.4	0.5
26.0	89.4	0.5	89.9	86.2	78.1	82.5	89.5	0.5
26.5	89.8	1.3	91.1	86.3	78.7	83.0	90.0	1.4
27.0	90.6	1.0	91.6	86.7	79.5	83.7	90.7	1.4
27.5	91.1	0.8	91.9	87.1	80.0	84.2	91.2	0.9
28.0	91.3	0.7	92.0	87.0	80.2	84.5	91.5	0.9
28.5	91.4	1.2	92.6	86.9	80.3	84.6	91.6	1.3
29.0	91.7	1.3	93.0	87.2	80.7	85.0	92.0	1.3



29.5	92.1	1.4	93.5	87.3	81.0	85.4	92.4	1.3
30.0	92.4	1.3	93.7	87.4	81.3	85.6	92.6	1.3
30.5	92.4	1.1	93.5	87.2	81.3	85.6	92.6	1.3
31.0	92.6	1.1	93.7	87.4	81.3	85.8	92.8	1.6
31.5	92.8	0.7	93.5	87.5	81.5	86.1	93.1	0.3
32.0	93.1	0.9	94.0	87.6	81.7	86.4	93.4	0.3
32.5	93.4	0.9	94.3	87.8	81.7	86.6	93.6	0.3
33.0	93.8	0.9	94.7	88.0	81.8	86.7	93.7	0.3
33.5	94.1	0.7	94.8	88.2	81.9	86.9	93.9	0.3
34.0	94.4	0.8	95.2	88.4	82.1	87.2	94.2	0.3
34.5	94.7	0.8	95.7	88.7	82.5	87.7	94.7	0.3
35.0	95.6	0.8	96.4	89.3	82.9	88.2	95.2	0.3
35.5	96.0	0.9	96.9	89.7	83.1	88.4	95.4	0.8
36.0	96.5	1.0	97.5	90.2	83.4	88.7	95.7	0.8
36.5	96.8	1.0	97.8	90.5	83.6	88.9	95.9	0.8
37.0	97.0	1.0	98.0	90.6	83.8	89.1	96.1	0.8
37.5	97.4	1.0	98.4	91.1	84.2	89.5	96.5	0.8
38.0	97.7	0.9	98.6	91.6	84.6	90.0	97.0	0.8
38.5	97.9	0.8	98.7	92.0	85.1	90.4	97.4	0.8
39.0	98.0	1.0	99.0	92.6	85.7	91.0	98.0	2.3
39.5	98.4	0.0	98.4	93.3	86.1	91.4	98.4	0.1
40.0	98.9	0.6	99.5	93.9	86.2	91.7	98.7	0.6
40.5	99.0	0.7	99.7	94.2	86.3	91.8	98.8	0.4
41.0	98.9	0.6	99.5	94.3	86.3	91.9	98.9	0.4
41.5	99.4	0.6	100.0	94.5	86.5	92.2	99.2	0.8
42.0	99.9	0.8	100.7	94.6	86.7	92.3	99.3	0.8
42.5	100.1	0.7	100.8	94.7	86.9	92.5	99.5	0.8
43.0	100.3	1.0	101.3	94.8	87.0	92.6	99.6	0.8
43.5	100.6	1.1	101.7	95.0	86.9	92.7	99.7	0.8
44.0	100.6	1.2	101.8	95.0	86.7	92.7	99.7	0.8
44.5	100.2	1.1	101.3	94.7	86.6	92.7	99.7	0.8
45.0	99.6	0.7	100.3	94.3	86.4	92.5	99.5	0.8
45.5	99.4	0.6	100.0	93.7	86.2	92.2	99.2	0.6
46.0	99.0	1.1	100.1	92.8	85.6	91.8	98.8	1.9
46.5	98.3	0.5	98.8	92.2	85.1	91.2	98.2	0.6
47.0	98.0	1.3	99.3	91.4	84.6	90.7	97.7	1.9
47.5	97.3	1.2	98.5	90.9	83.9	90.2	97.2	1.9
48.0	96.8	1.0	97.8	90.6	83.7	89.8	96.8	1.9
48.5	96.5	1.0	97.5	90.3	83.3	89.3	96.3	1.9
49.0	96.3	0.6	96.9	90.0	83.0	88.9	95.9	0.3
49.5	95.9	1.1	97.0	89.5	82.8	88.6	95.6	1.9
50.0	95.2	1.1	96.3	88.8	82.4	88.2	95.2	1.9
50.5	94.7	1.3	96.0	88.0	81.8	87.7	94.7	1.9
51.0	94.0	1.4	95.4	87.0	81.1	87.0	94.0	1.9
51.5	92.9	1.0	93.9	86.4	80.3	86.0	93.0	2.4
52.0	92.3	1.1	93.4	86.1	79.6	85.4	92.4	2.4

MAXIMUM VALUES IN BANDS, PNLC =101.8

50	63	80	100	125	160	200	250	315	400
83.2	79.2	82.7	87.3	88.8	98.5	85.4	88.3	84.6	83.9
79.9	77.5	77.2	76.0	76.0	75.1	71.3	70.8	72.3	67.2
64.5	62.7	58.8	53.7						

SPECTRUM FOR MAX PNLT

72.5	72.1	82.4	87.1	88.5	86.2	80.7	88.0	80.6	82.0
78.8	77.0	76.1	74.7	74.6	74.5	71.0	69.7	69.0	66.5
64.2	62.4	58.8	53.7						

P.T.	TIME	MAX.	D10	I-10	D20	I-20	D/15+M	D/30+M	A-100
	21.5	2.0							

PNL	43.5	100.6	25.0	111.0	52.0	111.4	102.8	103.0
PNLT	44.0	101.8	25.0	111.9	52.0	112.3	104.0	104.2
A-LEV	43.0	87.0	27.5	98.2	52.0	98.6	89.6	89.4
N-LEV	43.5	99.7	26.0	110.7	52.0	111.1	102.1	102.1

FPNL =101.9

## MAN ACOUSTICS, EVENT #16

T	PNL	P.T	PNLT	DA	A-LEV	D-LEV	N-LEV	BAND #
0.0	82.5	1.2	83.7	81.6	68.8	75.8	82.8	0.3
0.5	83.5	1.2	84.7	81.8	70.3	76.6	83.6	0.3
1.0	84.7	2.1	86.8	81.7	71.0	77.3	84.3	1.6
1.5	84.7	1.9	86.6	81.6	70.9	77.4	84.4	1.6
2.0	84.6	1.7	86.3	81.6	70.7	77.4	84.4	1.6
2.5	84.9	1.5	86.4	82.0	71.1	77.7	84.7	1.6
3.0	85.1	1.2	86.3	82.8	71.2	78.1	85.1	0.3
3.5	85.0	1.3	86.3	82.6	71.3	78.2	85.2	0.3
4.0	84.9	1.4	86.3	82.5	71.3	78.2	85.2	0.3
4.5	85.3	1.3	87.1	82.4	72.4	78.9	85.9	0.3
5.0	85.5	1.3	86.8	82.6	72.0	78.7	85.7	0.3
5.5	84.7	1.5	86.2	83.0	70.9	78.2	85.2	0.3
6.0	84.3	1.5	85.8	83.3	70.4	77.9	84.9	0.3
6.5	84.5	1.4	85.9	83.7	70.4	77.9	84.9	0.3
7.0	85.0	1.5	86.5	84.1	70.8	78.2	85.2	1.6
7.5	85.5	1.8	87.3	84.2	71.4	78.6	85.6	1.6
8.0	86.0	1.9	87.9	83.5	72.1	79.0	86.0	1.6
8.5	86.4	1.6	88.0	83.3	72.9	79.7	86.7	1.6
9.0	87.0	1.5	88.5	83.4	73.7	80.5	87.5	1.6
9.5	87.4	1.3	88.7	83.1	74.4	81.2	88.2	1.6
10.0	87.8	1.2	89.0	83.2	75.0	81.9	88.9	0.3
10.5	88.0	1.1	89.1	83.4	75.1	82.1	89.1	0.3
11.0	88.0	1.1	89.1	84.8	75.0	81.7	88.7	1.6
11.5	88.2	1.1	89.3	85.5	74.8	81.7	88.7	1.6
12.0	88.7	1.3	90.0	85.4	75.2	82.1	89.1	1.6
12.5	88.7	1.2	89.9	85.9	75.0	82.2	89.2	1.6
13.0	88.5	1.1	89.6	86.7	74.4	81.9	88.9	0.3
13.5	88.5	1.0	89.5	87.1	74.4	81.8	88.8	0.3
14.0	89.3	1.0	90.3	87.2	75.1	82.5	89.5	0.3
14.5	90.4	1.3	91.7	86.9	76.1	83.6	90.6	2.3
15.0	91.2	1.6	92.8	86.6	77.1	84.5	91.5	1.6
15.5	91.9	1.5	93.4	87.0	77.5	85.1	92.1	2.3
16.0	92.3	1.8	94.1	87.4	78.0	85.6	92.6	1.6
16.5	92.7	1.5	94.2	87.7	78.3	86.0	93.0	1.6
17.0	93.5	1.5	95.0	88.8	79.0	86.7	93.7	2.3
17.5	94.5	1.3	95.8	89.5	79.6	87.4	94.4	1.6
18.0	95.4	1.4	96.8	88.9	80.4	88.2	95.2	1.6
18.5	96.4	1.0	97.4	89.3	81.3	89.1	96.1	1.6
19.0	97.6	1.1	98.7	91.3	82.6	90.3	97.3	1.6
19.5	99.4	0.6	100.0	92.5	84.8	91.9	98.9	0.4
20.0	100.3	0.0	100.3	91.6	86.4	92.9	99.9	0.1
20.5	100.0	1.2	101.2	90.5	86.3	92.5	99.5	1.5
21.0	99.2	1.3	100.5	89.2	85.4	91.7	98.7	1.5
21.5	98.1	1.3	99.4	87.9	84.7	90.8	97.8	1.5
22.0	96.9	1.7	98.6	86.8	83.7	89.8	96.8	1.5
22.5	95.6	1.7	97.3	85.9	82.6	88.6	95.6	1.5
23.0	94.2	1.6	95.8	85.1	81.5	87.3	94.3	1.5
23.5	93.0	1.8	94.8	84.7	80.8	86.3	93.3	1.5
24.0	91.8	1.7	93.5	84.2	80.0	85.3	92.3	1.5
24.5	90.9	1.8	92.7	83.8	79.6	84.5	91.5	1.5
25.0	90.5	1.9	92.4	83.0	79.2	83.9	90.9	1.5
25.5	90.0	1.8	91.8	82.4	78.8	83.2	90.2	1.5
26.0	89.4	1.6	91.0	82.3	78.2	82.7	89.7	1.5
26.5	88.7	1.4	90.1	82.1	77.4	81.9	88.9	1.5
27.0	87.8	1.3	89.1	81.9	76.5	80.9	87.9	1.5
27.5	87.0	1.2	88.2	81.5	75.6	80.1	87.1	1.5
28.0	86.3	1.1	87.4	81.3	74.8	79.6	86.6	1.5
28.5	85.6	1.1	86.7	81.0	73.9	78.9	85.9	1.5
29.0	85.3	0.7	86.0	80.8	73.5	78.6	85.6	0.4

29.5	84.7	1.0	85.9	80.8	73.3	78.4	85.4	0.4
30.0	84.8	1.2	86.0	80.7	73.0	78.1	85.1	0.4

MAXIMUM VALUES IN BANDS, PNLC = 101.1

50	63	80	100	125	160	200	250	315	400
86.3	78.7	82.0	86.2	85.0	84.0	78.2	80.0	77.4	76.1
74.7	75.7	75.4	75.3	79.1	77.1	74.5	74.0	74.1	71.6
70.1	70.5	70.4	64.5						

SPECTRUM FOR MAX PNLT

77.5	75.5	78.1	81.6	81.3	81.1	78.2	77.2	76.2	75.5
74.7	75.7	75.3	74.7	79.1	76.5	73.9	73.8	74.1	70.7
68.8	69.3	66.7	63.0						

	TIME	MAX.	D10	I-10	D20	I-20	D/15+M	D/30+M
P. T.	1.0	2.1						
PNL	20.0	100.3	11.5	106.4	30.0	107.2	99.1	100.3
PNLT	20.5	101.2	12.0	107.7	30.0	108.4	100.2	101.2
A-LEV	20.0	86.4	13.0	92.9	30.0	93.6	85.8	86.4
N-LEV	20.0	99.9	12.0	106.3	30.0	107.1	98.9	99.9

EPNL = 97.7

## MAN ACOUSTICS, EVENT #17

T	PNL	P.T.	PNLT	OA	A-LEV	D-LEV	N-LEV	BAND #
0.0	86.1	0.6	86.7	86.7	71.3	79.5	86.5	0.4
0.5	87.0	0.0	87.0	87.7	72.2	80.7	87.7	0.1
1.0	88.0	0.0	88.0	88.4	73.1	81.6	88.6	0.1
1.5	88.3	0.0	88.8	88.9	74.0	82.5	89.5	0.1
2.0	89.4	0.0	89.4	89.4	74.7	83.0	90.0	0.1
2.5	89.7	0.0	89.7	89.6	75.3	83.3	90.3	0.1
3.0	90.2	0.0	90.2	89.7	75.9	83.5	90.5	0.1
3.5	90.7	0.0	90.7	90.0	76.4	83.9	90.9	0.1
4.0	91.1	0.0	91.1	90.2	76.8	84.2	91.2	0.1
4.5	91.6	0.5	92.1	90.4	77.2	84.5	91.5	0.6
5.0	91.4	0.0	91.4	90.4	77.1	84.5	91.5	0.1
5.5	91.5	0.0	91.5	90.6	77.2	84.7	91.7	0.1
6.0	91.6	0.0	91.6	91.1	77.3	85.0	92.0	0.1
6.5	92.3	0.0	92.3	91.3	77.8	85.3	92.3	0.1
7.0	92.3	0.0	92.8	91.5	78.4	85.6	92.6	0.1
7.5	92.6	0.0	92.6	91.2	78.2	85.4	92.4	0.1
8.0	92.4	0.0	92.4	91.1	77.8	85.1	92.1	0.1
8.5	92.2	0.0	92.2	91.3	77.2	85.0	92.0	0.1
9.0	91.9	0.0	91.9	91.1	76.8	84.8	91.8	0.1
9.5	91.9	0.0	91.9	91.1	76.5	84.7	91.7	0.1
10.0	91.7	0.0	91.7	90.7	76.7	84.5	91.5	0.1
10.5	91.6	0.0	91.6	90.6	76.8	84.5	91.5	0.1
11.0	91.6	0.0	91.6	90.5	76.8	84.4	91.4	0.1
11.5	91.8	0.0	91.8	90.5	77.0	84.6	91.6	0.1
12.0	91.9	0.0	91.9	90.6	77.0	84.7	91.7	0.1
12.5	91.9	0.0	91.9	90.5	77.0	84.6	91.6	0.1
13.0	91.8	0.0	91.8	90.5	77.0	84.6	91.6	0.1
13.5	91.9	0.0	91.9	90.6	77.1	84.7	91.7	0.1
14.0	92.0	0.0	92.0	90.6	77.2	84.7	91.7	0.1
14.5	92.0	0.0	92.0	90.6	77.3	84.8	91.8	0.1
15.0	92.0	0.0	92.0	90.7	77.5	84.9	91.9	0.1
15.5	92.2	0.0	92.2	90.8	77.7	85.1	92.1	0.1
16.0	92.7	0.0	92.7	91.2	77.9	85.5	92.5	0.1
16.5	93.1	0.0	93.1	91.5	78.3	85.7	92.7	0.1
17.0	93.4	0.0	93.4	91.7	78.6	86.0	93.0	0.1
17.5	93.4	0.0	93.4	91.6	78.7	86.1	93.1	0.1
18.0	93.4	0.0	93.4	91.8	79.0	86.2	93.2	0.1
18.5	93.5	0.0	93.5	91.9	79.0	86.3	93.3	0.1
19.0	93.7	0.0	93.7	92.2	78.9	86.4	93.4	0.1
19.5	94.1	0.0	94.1	92.6	79.1	86.8	93.8	0.1
20.0	94.1	0.0	94.1	92.8	78.9	86.8	93.8	0.1
20.5	94.4	0.0	94.4	93.0	79.0	87.0	94.0	0.1
21.0	94.5	0.0	94.5	93.2	79.0	87.0	94.0	0.1
21.5	94.3	0.0	94.3	93.1	78.8	86.8	93.8	0.1
22.0	94.2	0.0	94.2	93.5	78.6	86.9	93.9	0.1
22.5	94.1	0.0	94.1	93.7	78.2	86.9	93.9	0.1
23.0	93.9	0.0	93.9	93.7	78.2	86.7	93.7	0.1
23.5	93.8	0.0	93.8	93.8	78.1	86.7	93.7	0.1
24.0	93.8	0.0	93.8	94.0	77.9	86.7	93.7	0.1
24.5	93.7	0.0	93.7	94.0	77.7	86.7	93.7	0.1
25.0	93.8	0.0	93.8	93.9	78.4	86.8	93.8	0.1
25.5	93.7	0.0	93.7	93.7	78.4	86.6	93.6	0.1
26.0	93.6	0.7	94.3	93.2	78.7	86.6	93.6	2.4
26.5	93.5	0.7	94.2	92.6	78.5	86.2	93.2	2.4
27.0	93.6	0.5	94.1	91.7	78.1	85.8	92.8	0.7
27.5	93.8	0.7	94.5	90.8	78.2	85.7	92.7	0.7
28.0	94.3	0.9	95.2	90.0	79.1	85.1	93.1	0.7
28.5	94.8	1.0	95.8	89.2	80.2	86.8	93.8	0.7
29.0	94.4	0.8	95.2	88.1	80.9	87.1	94.1	0.7

29.5	94.4	0.6	95.0	86.9	81.0	87.3	94.3	0.7
30.0	94.4	0.0	94.4	85.6	81.1	87.3	94.3	0.1
30.5	93.3	0.0	93.8	84.5	80.6	86.8	93.8	0.1
31.0	93.5	0.0	93.5	83.7	80.3	86.5	93.5	0.1
31.5	93.0	0.0	93.0	83.1	79.7	86.0	93.0	0.1
32.0	92.7	0.0	92.7	82.5	79.8	85.9	92.9	0.1
32.5	92.1	0.0	92.1	82.2	79.2	85.2	92.2	0.1
33.0	91.7	0.0	91.7	82.1	79.2	85.0	92.0	0.1
33.5	91.8	0.0	91.8	81.9	79.3	85.2	92.2	0.1
34.0	91.4	0.0	91.4	81.5	78.7	84.7	91.7	0.1
34.5	91.0	0.0	91.0	81.5	78.4	84.3	91.3	0.1
35.0	90.6	0.0	90.6	81.2	78.0	83.9	90.9	0.1
35.5	90.0	0.6	90.6	81.3	77.4	83.2	90.2	0.8
36.0	89.5	0.6	90.1	81.3	77.3	82.7	89.7	0.8
36.5	89.0	0.9	89.9	81.0	76.7	82.1	89.1	0.8
37.0	88.4	1.0	89.4	80.7	76.3	81.5	88.5	0.4
37.5	88.0	0.9	88.9	80.4	75.9	81.1	88.1	0.4
38.0	86.9	1.3	88.2	80.8	74.6	80.0	87.0	0.4
38.5	86.4	1.0	87.4	81.0	73.6	79.3	86.3	0.4
39.0	86.6	1.0	87.6	80.7	74.1	79.6	86.6	0.4
39.5	86.3	0.7	87.0	79.9	74.0	79.4	86.4	0.4
40.0	85.9	0.7	86.6	79.7	73.9	79.1	86.1	0.4
40.5	85.7	0.8	86.5	79.1	73.2	78.8	85.8	0.4
41.0	84.5	1.0	85.5	80.2	71.8	77.7	84.7	0.4
41.5	83.6	1.2	84.8	79.7	70.9	76.9	83.9	0.4
42.0	83.2	0.7	83.9	79.1	70.8	76.4	83.4	0.4
42.5	82.6	0.6	83.2	78.1	70.6	75.7	82.7	0.4
43.0	81.1	0.0	81.1	77.1	68.9	74.2	81.2	0.1
43.5	79.2	0.0	79.2	75.8	66.8	72.4	79.4	0.1
44.0	77.1	0.0	77.1	74.2	64.9	70.5	77.5	0.1

MAXIMUM VALUES IN BANDS, PNLC = 98.1

50	63	80	100	125	160	200	250	315	400
86.8	86.9	88.5	88.0	85.5	82.9	82.7	79.8	77.8	74.0
72.2	72.5	71.8	72.1	71.1	69.8	69.5	69.1	67.6	67.6
63.8	61.4	56.4	48.5						

SPECTRUM FOR MAX PNLT

81.4	78.2	78.0	77.0	79.8	79.3	82.6	74.1	74.7	73.2
71.2	69.7	69.8	69.7	67.6	66.0	66.7	66.5	64.7	64.9
62.7	59.2	52.6	45.7						

	TIME	MAX.	D10	I-10	D20	I-20	D/15+M	D/30+M
P. T.	38.0	1.3						
PNL	28.5	94.8	41.0	108.4	44.0	108.4	99.2	96.5
PNLT	28.5	95.8	41.0	108.6	44.0	108.6	100.2	97.5
A-LEV	30.0	81.1	41.5	94.0	44.0	94.1	85.5	82.8
N-LEV	29.5	94.3	41.5	108.3	44.0	108.3	98.7	96.0

EPNL = 98.6



## MAN ACOUSTICS, EVENT #18

T	PNI	P.T.	PNLT	QA	A-LEV	D-LEV	N-LEV	BAND #
0.0	68.2	1.4	69.6	70.1	57.2	63.6	70.6	0.4
0.5	70.4	1.5	71.9	71.3	60.2	65.6	72.6	0.4
1.0	72.7	2.2	74.9	72.3	63.7	67.5	74.5	1.2
1.5	75.3	1.7	77.0	74.1	66.7	70.1	77.1	0.4
2.0	80.5	1.9	82.4	78.8	71.8	75.2	82.2	0.4
2.5	85.6	2.0	87.6	83.0	76.4	79.7	86.7	0.4
3.0	87.6	2.0	89.6	85.3	78.0	81.6	88.6	0.4
3.5	88.9	2.2	91.1	86.5	78.3	82.4	89.4	0.4
4.0	89.6	2.2	91.8	87.5	78.9	83.1	90.1	0.4
4.5	89.8	2.0	91.8	87.8	78.7	83.1	90.1	0.4
5.0	89.7	1.8	91.5	87.8	78.6	82.9	89.9	0.4
5.5	89.8	1.7	91.5	87.9	78.9	83.1	90.1	0.4
6.0	89.7	1.9	91.6	87.9	79.0	83.3	90.3	1.1
6.5	89.7	1.6	91.3	87.9	79.0	83.3	90.3	0.7
7.0	89.4	2.1	91.5	87.7	78.4	82.9	89.9	1.1
7.5	89.7	2.5	92.2	87.3	78.6	82.8	89.8	1.2
8.0	89.3	2.4	91.7	87.3	78.1	82.5	89.5	1.2
8.5	89.0	2.1	91.1	87.1	77.5	82.2	89.2	1.2
9.0	88.5	1.7	90.2	86.9	76.3	81.5	88.5	1.2
9.5	88.0	1.4	89.4	86.6	75.4	81.0	88.0	0.7
10.0	87.7	1.5	89.2	86.2	75.3	80.7	87.7	0.7
10.5	87.8	1.5	89.3	86.1	75.1	80.5	87.5	0.7
11.0	88.2	1.5	89.7	86.1	75.9	80.9	87.9	0.4
11.5	87.9	1.5	89.4	85.7	76.3	80.7	87.7	0.4
12.0	87.8	1.4	89.2	85.5	76.7	81.0	88.0	0.4
12.5	87.7	1.6	89.3	85.7	76.5	81.1	88.1	0.7
13.0	88.2	1.4	89.6	85.6	76.9	81.4	88.4	0.7
13.5	89.1	1.3	90.4	85.8	78.1	82.4	89.4	0.4
14.0	90.0	1.3	91.3	86.1	79.9	83.6	90.6	0.4
14.5	90.2	1.4	91.6	86.4	80.2	83.8	90.8	0.4
15.0	90.4	1.9	92.3	86.7	80.4	84.1	91.1	0.7
15.5	90.9	2.1	93.0	87.6	80.8	84.8	91.8	0.7
16.0	90.7	2.1	92.8	87.8	80.4	84.6	91.6	0.7
16.5	90.2	2.0	92.2	88.3	79.1	84.0	91.0	0.7
17.0	91.2	2.0	93.2	88.8	80.0	84.8	91.8	0.7
17.5	92.5	2.2	94.7	89.2	81.7	86.0	93.0	0.7
18.0	93.6	1.9	95.5	89.7	82.8	86.9	93.9	0.7
18.5	94.6	1.9	96.5	90.3	84.6	88.4	95.4	0.4
19.0	94.7	1.8	96.5	90.3	85.0	88.7	95.7	0.4
19.5	94.3	1.7	96.0	89.8	84.7	88.2	95.2	0.4
20.0	94.1	1.5	95.6	89.5	84.3	87.9	94.9	0.4
20.5	95.3	1.6	96.9	90.2	85.3	89.0	96.0	0.4
21.0	95.7	1.7	97.4	90.4	85.6	89.4	96.4	0.4
21.5	95.3	1.7	97.0	90.3	85.3	89.0	96.0	0.4
22.0	95.6	1.7	97.3	90.6	85.6	89.4	96.4	0.4
22.5	95.7	1.6	97.3	90.7	85.4	89.3	96.3	0.4
23.0	96.4	1.7	98.1	91.2	86.1	90.0	97.0	0.4
23.5	96.5	1.6	98.1	91.2	86.1	90.0	97.0	0.4
24.0	96.7	1.5	98.2	91.4	86.5	90.2	97.2	0.4
24.5	97.0	1.6	98.6	91.5	86.7	90.5	97.5	0.4
25.0	97.0	1.7	98.7	91.4	86.9	90.4	97.4	0.4
25.5	98.0	1.7	99.7	92.1	87.7	91.4	98.4	0.4
26.0	98.0	1.7	99.7	92.2	87.9	91.6	98.6	0.4
26.5	98.2	1.8	100.0	92.6	88.1	91.9	98.9	0.4
27.0	98.5	2.0	100.5	92.9	87.8	91.8	98.8	0.4
27.5	98.7	1.9	100.6	93.0	87.8	91.8	98.8	0.4
28.0	98.5	1.9	100.4	93.1	87.7	91.9	98.9	0.4
28.5	98.7	2.2	100.9	93.1	88.1	92.2	99.2	0.7
29.0	99.1	2.2	101.3	93.3	88.5	92.6	99.6	0.7

29.5	99.7	2.1	101.8	93.4	88.7	93.0	100.0	0.7
30.0	100.2	2.1	102.3	93.5	89.3	93.4	100.4	0.7
30.5	100.2	2.3	102.5	93.6	89.8	93.7	100.7	0.7
31.0	99.8	1.7	101.5	93.5	89.8	93.6	100.6	0.7
31.5	100.0	1.4	101.4	93.6	89.8	93.9	100.9	0.7
32.0	100.2	1.2	101.4	93.4	90.0	94.0	101.0	0.7
32.5	100.0	1.5	101.5	93.1	89.6	93.8	100.8	0.4
33.0	97.8	1.7	101.5	92.9	89.1	93.6	100.6	0.3
33.5	99.8	1.0	100.8	92.5	88.5	93.4	100.4	0.3
34.0	100.0	1.2	101.2	92.5	88.4	93.5	100.5	0.8
34.5	99.3	1.1	100.4	91.5	87.9	92.8	99.8	0.8
35.0	98.5	1.0	99.5	90.7	87.6	92.2	99.2	0.3
35.5	98.1	0.9	99.0	90.1	87.6	92.0	99.0	0.3
36.0	97.9	1.0	98.9	89.9	87.6	91.8	98.8	0.6
36.5	97.5	1.1	98.6	89.5	87.0	91.4	98.4	0.6
37.0	97.4	1.4	98.8	89.5	87.1	91.3	98.3	0.6
37.5	96.8	1.4	98.2	89.2	86.5	90.7	97.7	0.6
38.0	96.8	1.3	98.1	89.1	86.5	90.7	97.7	0.6
38.5	96.3	1.1	97.4	89.0	86.2	90.3	97.3	0.6
39.0	96.0	1.1	97.1	89.0	86.1	90.2	97.2	0.6
39.5	95.7	1.1	96.8	88.6	85.6	89.3	96.8	0.8
40.0	95.4	1.2	96.6	88.4	84.9	89.1	96.1	0.3
40.5	95.6	1.1	96.7	88.6	84.7	89.0	96.0	0.3
41.0	95.5	1.3	96.8	88.6	84.2	88.6	95.6	0.3
41.5	95.0	1.2	96.2	88.5	83.4	88.0	95.0	0.3
42.0	94.3	1.1	95.4	87.9	83.1	87.6	94.6	0.3
42.5	94.0	1.2	95.2	87.5	82.8	87.3	94.3	0.3
43.0	93.3	1.2	94.5	87.1	82.0	86.5	93.5	1.2
43.5	92.9	1.2	94.1	86.8	81.6	86.1	93.1	1.2
44.0	92.5	1.8	94.3	86.5	81.9	86.0	93.0	1.2
44.5	92.6	1.6	94.2	86.6	82.2	86.2	93.2	1.2
45.0	92.7	1.4	94.1	86.4	82.5	86.6	93.6	1.2
45.5	92.7	1.2	93.9	86.4	81.7	86.0	93.0	1.2
46.0	92.0	1.1	93.1	85.9	80.6	85.1	92.1	0.3
46.5	91.0	1.2	92.2	85.1	79.8	84.3	91.3	0.3
47.0	90.4	1.3	91.7	84.8	79.4	83.7	90.7	0.3
47.5	90.8	1.3	92.1	85.2	80.1	84.2	91.2	0.3
48.0	91.1	1.5	92.6	85.2	80.9	84.7	91.7	1.3
48.5	90.6	1.6	92.2	84.6	80.6	84.3	91.3	1.3
49.0	89.6	1.3	90.9	83.9	79.4	83.2	90.2	1.3
49.5	88.4	1.3	89.7	82.9	77.9	81.9	88.9	0.3
50.0	87.1	1.4	88.5	82.0	76.1	80.3	87.3	0.3
50.5	85.3	1.3	86.6	80.5	74.3	78.6	85.6	0.3
51.0	83.3	1.2	84.5	78.6	72.3	76.7	83.7	0.3
51.5	80.8	1.1	81.9	76.7	70.2	74.6	81.6	0.3
52.0	78.9	1.2	80.1	74.9	68.5	72.8	79.8	0.3

MAXIMUM VALUES IN BANDS, PNLC =103.2

50	63	80	100	125	160	200	250	315	400
79.9	79.9	79.2	84.6	74.4	83.2	87.6	87.0	88.1	88.3
85.9	85.7	83.1	81.3	79.1	78.3	77.0	74.0	71.0	67.7
62.0	55.6	47.7	45.8						

SPECTRUM FOR MAX PNLT

72.0	73.8	68.2	72.7	67.6	74.9	87.0	76.4	80.4	87.7
84.0	85.7	81.6	78.6	76.8	74.5	72.7	69.9	66.7	63.0
57.1	49.3	44.7	44.3						

P. T.      TIME      MAX      D10      I-10      D20      I-20      D/15+M      D/30+M      A-107

             7.5      2.5

PNL	30.0	100.2	32.5	112.0	50.5	112.3	103.6	102.5
PNLT	30.5	102.5	30.0	113.4	49.5	113.9	105.5	104.7
A-LEV	32.0	70.0	29.5	101.3	50.5	101.7	92.9	92.3
N-LEV	32.0	101.0	30.5	112.5	50.5	112.9	104.1	103.3

EPNL =103.4

## MAN ACOUSTICS, EVENT #19

T	PNL	P.T.	PNLT	OA	A-LEV	D-LEV	N-LEV	BAND #
0.0	76.5	2.3	78.8	75.6	65.0	71.1	78.1	0.7
0.5	82.1	2.4	84.5	79.8	69.1	75.2	82.2	0.7
1.0	83.9	2.4	86.3	81.6	70.7	77.0	84.0	0.7
1.5	84.5	2.3	86.8	81.9	71.4	77.4	84.4	0.7
2.0	84.6	2.2	86.8	81.8	71.8	77.5	84.5	0.7
2.5	84.5	2.2	86.7	81.8	72.1	77.4	84.4	0.7
3.0	84.6	2.3	86.9	81.9	72.2	77.5	84.5	0.7
3.5	84.8	2.5	87.3	82.2	72.0	77.6	84.6	0.7
4.0	84.8	2.4	87.2	82.4	71.7	77.5	84.5	0.7
4.5	84.7	2.4	87.1	82.3	71.6	77.4	84.4	0.7
5.0	84.6	2.3	86.9	82.2	71.3	77.2	84.2	0.7
5.5	85.1	2.4	87.5	82.6	71.4	77.6	84.6	0.7
6.0	85.1	2.4	87.5	82.7	71.2	77.6	84.6	0.7
6.5	85.3	2.4	87.7	83.1	71.4	77.9	84.9	0.7
7.0	85.3	2.4	87.7	83.4	71.5	78.1	85.1	0.7
7.5	85.4	2.3	87.7	83.6	71.4	78.1	85.1	0.7
8.0	85.5	2.3	87.8	83.5	71.9	78.2	85.2	0.7
8.5	86.0	2.4	88.4	83.6	73.2	78.7	85.7	0.7
9.0	86.0	2.3	88.3	83.6	73.5	78.9	85.9	0.7
9.5	86.1	2.2	88.3	83.9	73.8	79.3	86.3	0.7
10.0	86.1	2.3	88.4	84.3	73.3	79.3	86.3	0.7
10.5	86.0	2.3	88.3	84.5	72.7	79.3	86.3	0.7
11.0	86.2	2.3	88.5	84.7	72.6	79.4	86.4	0.7
11.5	86.3	2.3	88.6	85.0	72.8	79.7	86.7	0.7
12.0	86.6	2.3	88.9	85.2	73.1	79.8	86.8	0.7
12.5	86.7	2.4	89.1	85.3	73.4	80.0	87.0	0.7
13.0	87.1	2.4	89.5	85.4	74.2	80.5	87.5	0.7
13.5	87.8	2.5	90.3	85.6	75.0	81.0	88.0	0.4
14.0	88.1	2.6	90.7	85.5	75.7	81.3	88.3	0.4
14.5	88.3	2.7	91.0	85.5	76.5	81.6	88.6	0.4
15.0	88.3	2.6	90.9	85.4	77.2	81.9	88.9	0.4
15.5	88.4	2.6	91.0	85.3	77.6	82.1	89.1	1.1
16.0	88.6	2.5	91.1	85.3	77.6	82.1	89.1	0.4
16.5	88.7	2.6	91.3	85.4	77.0	81.9	89.9	0.4
17.0	88.3	2.5	90.8	85.4	76.2	81.4	89.4	0.4
17.5	87.9	2.3	90.2	85.7	75.8	81.2	88.2	1.1
18.0	87.9	2.5	90.4	85.9	75.2	80.9	87.9	1.2
18.5	87.7	2.2	89.9	85.8	74.4	80.5	87.5	1.2
19.0	87.8	2.0	89.8	86.0	74.0	80.4	87.4	0.4
19.5	87.9	2.0	89.9	86.1	74.0	80.4	87.4	0.4
20.0	88.0	1.9	89.9	86.1	74.4	80.5	87.5	0.4
20.5	88.2	1.9	90.1	86.1	75.5	81.0	88.0	0.4
21.0	88.0	2.0	90.0	85.8	76.0	81.0	88.0	0.7
21.5	87.8	1.9	89.7	85.3	76.7	81.1	88.1	0.4
22.0	88.2	1.9	90.1	85.5	77.7	81.8	88.8	0.7
22.5	92.3	6.4	98.7	86.1	81.2	85.7	92.7	1.6
23.0	89.6	2.1	91.7	86.1	79.5	83.3	90.3	0.7
23.5	90.5	2.2	92.7	86.8	80.2	84.2	91.2	0.7
24.0	91.4	2.4	93.8	87.1	80.8	84.7	91.7	0.4
24.5	91.6	2.4	94.0	87.1	81.0	84.9	91.9	0.4
25.0	91.7	2.4	94.1	87.1	81.2	85.1	92.1	0.4
25.5	91.7	2.2	93.9	87.2	81.1	85.1	92.1	0.4
26.0	92.1	2.1	94.2	87.5	81.6	85.5	92.5	0.7
26.5	92.9	2.0	94.9	87.9	82.4	86.1	93.1	0.4
27.0	93.4	1.9	95.3	88.1	82.8	86.5	93.5	0.4
27.5	93.5	1.9	95.4	88.3	82.9	86.7	93.7	0.4
28.0	93.6	2.0	95.6	88.6	83.0	86.9	93.9	0.4
28.5	93.8	2.0	95.8	88.6	82.9	87.0	94.0	0.4
29.0	94.0	2.1	96.1	88.6	83.1	87.1	94.1	0.4

29.5	94.4	2.1	96.5	88.8	83.5	87.5	94.5	0.4
30.0	94.8	2.1	96.9	89.2	83.9	87.9	94.9	0.4
30.5	95.4	2.1	97.5	89.7	84.5	88.6	95.6	0.4
31.0	96.1	1.9	98.0	89.9	84.7	89.0	96.0	0.4
31.5	96.6	1.9	98.5	90.2	85.3	89.6	96.6	0.4
32.0	97.0	1.9	98.9	90.9	85.7	90.0	97.0	0.4
32.5	97.0	2.0	99.0	91.0	85.6	90.1	97.1	0.4
33.0	96.9	2.1	99.0	91.1	85.4	90.0	97.0	0.4
33.5	96.7	2.2	98.9	91.3	85.1	89.9	96.9	0.4
34.0	96.9	2.1	99.0	91.2	85.1	90.1	97.1	0.4
34.5	96.9	2.2	99.1	91.2	85.2	90.2	97.2	0.4
35.0	97.3	2.1	99.4	91.4	85.3	90.6	97.6	0.4
35.5	97.9	1.7	99.6	91.8	85.8	91.0	98.0	0.4
36.0	98.4	1.5	99.9	92.0	86.1	91.4	98.4	0.4
36.5	98.7	1.0	99.7	92.1	86.6	91.8	98.8	0.4
37.0	99.3	1.2	100.5	92.1	86.9	92.2	99.2	0.7
37.5	100.0	1.4	101.4	92.7	87.5	93.1	100.1	0.7
38.0	100.2	1.3	101.5	92.9	87.7	93.3	100.3	0.7
38.5	100.5	0.0	100.5	93.6	87.9	93.6	100.6	0.1
39.0	101.1	0.8	101.9	94.0	88.0	93.7	100.7	0.3
39.5	100.7	1.0	101.7	93.6	87.8	93.4	100.4	0.3
40.0	100.3	1.0	101.3	93.2	87.9	93.3	100.3	0.3
40.5	99.9	0.7	100.6	92.6	87.7	93.1	100.1	0.3
41.0	99.5	0.9	100.4	91.7	87.3	92.7	99.7	0.6
41.5	99.0	1.0	100.0	90.8	86.9	92.2	99.2	0.6
42.0	98.3	1.1	99.4	89.9	86.2	91.5	98.5	0.6
42.5	98.0	1.0	99.0	89.3	85.7	91.2	98.2	0.3
43.0	97.7	1.3	99.0	89.4	85.8	91.1	98.1	0.3
43.5	97.2	1.7	98.9	89.3	85.7	90.7	97.7	1.2
44.0	97.1	1.6	98.7	89.2	85.6	90.2	97.2	0.3
44.5	96.6	1.7	98.3	88.8	85.5	89.7	96.7	0.3
45.0	95.7	1.7	97.4	88.3	85.0	89.1	96.1	0.3
45.5	95.3	1.8	97.1	88.0	84.9	88.9	95.9	0.3
46.0	95.0	2.0	97.0	87.5	84.3	88.4	95.4	0.3
46.5	94.2	2.0	96.2	87.0	83.5	87.8	94.8	0.3
47.0	93.3	2.0	95.3	86.2	82.5	87.0	94.0	0.3
47.5	92.6	2.0	94.6	85.8	81.5	86.1	93.1	0.3
48.0	92.1	1.9	94.0	85.7	80.9	85.6	92.6	0.3
48.5	92.0	2.0	94.0	85.8	80.7	85.2	92.2	0.3
49.0	91.8	2.1	93.9	85.7	80.4	84.9	91.9	0.3
49.5	91.1	2.2	93.3	85.8	79.5	84.5	91.5	0.3
50.0	90.8	2.0	92.8	85.7	79.1	84.2	91.2	0.3
50.5	90.8	2.1	92.9	85.8	79.0	84.1	91.1	0.3
51.0	90.7	2.0	92.7	85.9	78.7	83.9	90.9	0.3
51.5	90.7	2.0	92.7	86.0	78.2	83.6	90.6	0.3
52.0	90.7	1.9	92.6	85.8	77.8	83.3	90.3	0.3
52.5	90.4	1.8	92.2	85.3	77.7	83.1	90.1	0.3

MAXIMUM VALUES IN BANDS, PNLC =102.5

50	63	80	100	125	160	200	250	315	400
77.1	77.0	81.2	84.0	83.6	86.4	87.6	87.7	84.0	86.4
83.2	82.3	80.3	77.6	77.2	77.0	74.9	72.7	72.3	70.9
68.2	65.1	60.5	55.6						

SPECTRUM FOR MAX PNLT

75.7	67.2	78.5	80.0	81.1	86.4	85.5	87.7	80.8	82.2
82.4	79.2	78.4	76.0	74.9	75.1	74.5	72.0	71.7	70.7
67.8	64.8	59.5	53.7						

TIME MAX. D10 I-10 D20 I-20 D/15+M D/30+M A-110



P. T.	22.5	6.4						
PNL	39.0	101.1	26.0	111.0	52.5	111.5	103.5	103.5
PNLT	39.0	101.9	29.5	112.7	52.5	113.1	104.8	104.3
A-LEV	39.0	88.0	30.0	99.4	52.5	99.7	91.0	90.4
N-LEV	39.0	100.7	28.5	111.3	52.5	111.6	103.5	103.1

EPNL =102.7



## MAN ACOUSTICS, EVENT #20

T	PNL	P.T.	PNLT	OA	A-LEV	D-LEV	N-LEV	BAND #
0.0	75.7	2.4	78.1	77.1	64.1	70.5	77.5	0.2
0.5	79.8	2.4	82.2	80.6	66.6	73.7	80.7	0.2
1.0	82.5	2.4	84.9	83.5	68.0	75.9	82.9	0.2
1.5	83.8	2.4	86.2	84.7	69.0	77.0	84.0	0.2
2.0	84.7	2.5	87.2	85.6	70.0	77.7	84.7	0.2
2.5	85.2	2.4	87.6	85.9	70.7	78.2	85.2	0.2
3.0	85.3	2.1	87.4	85.9	71.4	78.5	85.5	0.2
3.5	85.5	1.8	87.3	86.1	71.3	78.7	85.7	0.2
4.0	85.8	1.7	87.5	86.3	71.3	78.9	85.9	0.2
4.5	86.1	1.9	88.0	86.5	71.3	79.1	86.1	0.2
5.0	86.5	1.8	88.3	86.7	71.6	79.5	86.5	0.2
5.5	86.7	1.5	88.4	86.8	72.3	79.9	86.9	0.2
6.0	87.0	1.7	88.7	86.8	73.2	80.3	87.3	1.3
6.5	87.3	1.6	88.9	87.0	73.7	80.7	87.7	1.3
7.0	87.8	1.4	89.2	87.3	74.1	81.1	88.1	0.2
7.5	88.2	1.4	89.6	87.6	74.4	81.5	88.5	0.2
8.0	88.2	1.4	89.6	88.0	74.2	81.6	88.6	0.2
8.5	88.1	1.2	89.3	88.4	73.7	81.6	88.6	0.2
9.0	88.0	1.2	89.2	88.5	73.2	81.3	88.3	0.2
9.5	87.7	1.2	89.1	88.4	73.2	81.1	88.1	0.2
10.0	87.8	1.4	89.2	88.1	73.1	80.8	87.8	0.2
10.5	88.0	1.6	89.6	88.0	73.2	80.9	87.9	0.2
11.0	88.3	1.8	90.1	88.1	73.7	81.2	88.2	0.2
11.5	88.7	1.4	90.1	88.3	74.6	81.6	88.6	0.2
12.0	89.1	1.2	90.3	88.5	75.2	82.1	89.1	0.2
12.5	89.3	1.3	90.6	88.6	75.6	82.4	89.4	1.3
13.0	89.2	1.5	90.7	88.5	75.8	82.4	89.4	1.3
13.5	88.8	1.1	89.9	88.6	74.7	82.0	89.0	0.2
14.0	88.9	1.2	90.1	88.7	74.2	81.8	88.8	0.2
14.5	89.2	1.0	90.2	88.5	75.1	82.3	89.3	1.5
15.0	89.2	1.2	90.4	88.7	75.1	82.4	89.4	1.5
15.5	89.4	1.2	90.6	88.9	75.1	82.5	89.5	1.5
16.0	89.5	0.0	89.5	89.0	75.2	82.6	89.6	0.1
16.5	89.8	0.0	89.8	88.8	75.9	82.8	89.8	0.1
17.0	90.6	0.0	90.6	88.6	77.4	83.7	90.7	0.1
17.5	92.3	0.6	92.9	88.6	79.7	85.2	92.2	0.6
18.0	93.6	1.0	94.6	88.6	81.3	86.4	93.4	1.1
18.5	94.4	1.1	95.5	89.2	81.9	86.9	93.9	1.1
19.0	96.3	0.9	97.2	89.9	83.8	88.7	95.7	0.6
19.5	97.1	1.1	98.2	90.2	84.3	89.5	96.5	2.4
20.0	97.7	1.2	98.9	90.5	84.8	90.4	97.4	2.4
20.5	97.9	1.0	98.9	91.0	85.1	90.9	97.9	2.4
21.0	98.0	0.9	98.9	91.6	85.5	91.3	98.3	2.4
21.5	98.8	0.8	99.6	92.4	86.0	92.0	99.0	0.7
22.0	99.7	0.9	100.6	93.4	86.6	92.6	99.6	0.7
22.5	100.0	1.0	101.0	94.0	86.8	93.0	100.0	1.3
23.0	100.3	1.0	101.3	94.4	87.1	93.3	100.3	1.3
23.5	100.5	0.0	100.5	94.6	87.1	93.2	100.2	0.1
24.0	100.3	0.0	100.3	94.8	86.7	93.0	100.0	0.1
24.5	100.0	0.0	100.0	95.1	86.1	92.8	99.8	0.1
25.0	99.7	0.0	99.7	94.9	85.4	92.4	99.4	0.1
25.5	99.0	0.5	99.5	94.2	84.4	91.6	98.6	0.4
26.0	98.4	0.6	99.0	93.7	83.7	91.1	98.1	0.4
26.5	97.9	0.0	97.9	93.1	83.2	90.5	97.5	0.1
27.0	97.2	0.0	97.2	92.1	82.6	89.9	96.9	0.1
27.5	96.3	0.0	96.3	91.2	81.9	89.1	96.1	0.1
28.0	96.0	0.0	96.0	90.4	81.5	88.6	95.6	0.1
28.5	95.4	0.0	95.4	89.6	81.0	88.0	95.0	0.1
29.0	94.9	0.5	95.4	89.1	80.5	87.5	94.5	2.4

29.5	94.3	0.6	94.9	88.4	80.2	87.0	94.0	2.4
30.0	93.6	0.7	94.3	87.9	79.4	86.3	93.3	2.4
30.5	93.2	1.0	94.2	87.8	79.1	85.9	92.9	2.4
31.0	92.7	1.0	93.7	87.0	78.7	85.5	92.5	2.4
31.5	91.9	1.0	92.9	86.7	77.8	84.7	91.7	2.4
32.0	91.3	0.9	92.2	86.5	77.4	84.1	91.1	2.4
32.5	91.1	1.2	92.3	86.1	77.6	84.1	91.1	1.3
33.0	90.7	1.3	92.0	86.0	77.5	83.6	90.6	1.3
33.5	90.2	0.6	90.8	86.0	77.1	83.3	90.3	2.4
34.0	89.5	0.8	90.3	85.8	76.5	82.6	89.6	0.4
34.5	88.7	0.0	88.7	85.3	75.5	81.3	88.8	0.1
35.0	88.4	0.0	88.4	85.6	75.1	81.6	88.6	0.1
35.5	88.4	0.0	88.4	85.2	75.3	81.6	88.6	0.1
36.0	88.3	0.5	88.8	84.9	75.3	81.4	88.4	0.3
36.5	87.8	0.5	88.3	84.7	75.1	81.0	88.0	0.3
37.0	87.1	0.0	87.1	84.2	74.9	80.5	87.5	0.1
37.5	87.2	0.6	87.8	83.9	75.0	80.5	87.5	0.3
38.0	87.2	0.5	87.7	83.5	75.3	80.5	87.5	0.3
38.5	87.2	0.0	87.2	83.0	75.4	80.4	87.4	0.1
39.0	87.6	0.0	87.6	82.8	75.7	80.6	87.6	0.1
39.5	87.5	0.0	87.5	82.4	75.9	80.6	87.6	0.1
40.0	87.2	0.5	87.7	82.0	75.3	80.4	87.4	0.3
40.5	86.6	0.6	87.2	82.0	75.0	79.7	86.7	0.3
41.0	86.1	0.0	86.1	82.1	73.9	79.1	86.1	0.1
41.5	85.6	0.0	85.6	82.0	72.9	78.5	85.5	0.1
42.0	85.7	0.6	86.3	82.5	72.4	78.5	85.5	0.3
42.5	85.7	0.8	86.5	82.7	72.3	78.5	85.5	0.3
43.0	85.9	0.8	86.7	82.9	72.5	78.7	85.7	0.3
43.5	86.3	0.7	87.0	82.8	72.9	78.9	85.9	0.3
44.0	86.4	0.7	87.1	83.2	73.0	79.1	86.1	0.3

MAXIMUM VALUES IN BANDS, PNLC = 101.7

50	63	80	100	125	160	200	250	315	400
83.6	85.4	81.2	84.8	88.2	89.7	88.7	87.0	85.3	83.6
79.7	77.2	77.6	73.2	73.3	72.1	71.5	71.5	71.1	70.1
67.3	63.5	56.7	47.1						

SPECTRUM FOR MAX PNLT

77.9	77.7	74.7	72.1	80.9	87.3	88.3	86.7	84.4	83.2
78.0	75.7	77.6	73.0	73.0	71.5	71.3	71.5	71.1	70.1
67.3	63.0	54.9	45.9						

	TIME	MAX	D10	I-10	D20	I-20	D/15+M	D/30+M
P.T.	2.0	2.5						
PNL	23.5	100.5	17.0	109.3	43.5	110.0	101.0	102.1
PNLT	23.0	101.3	16.5	109.9	44.0	110.7	101.7	103.0
A-LEV	23.0	87.1	17.0	95.8	43.5	96.5	87.6	88.7
N-LEV	23.0	100.3	17.0	109.1	44.0	109.9	100.8	102.0

EPNL = 99.9

## MAN ACOUSTICS, EVENT #21

T	PNL	P.T	PNLT	QA	A-LEV	D-LEV	N-LEV	BAND #
0.0	63.5	0.6	64.1	65.1	52.0	59.4	65.4	0.7
0.5	66.2	0.8	67.0	68.7	55.0	62.0	69.0	0.2
1.0	70.3	1.1	71.4	70.6	58.8	65.1	72.1	1.3
1.5	74.3	0.5	74.8	73.2	62.7	68.5	75.5	0.2
2.0	77.2	0.6	77.8	74.6	65.3	70.8	77.8	0.3
2.5	79.6	0.0	79.6	76.1	67.3	72.7	79.7	0.1
3.0	80.5	0.0	80.5	76.9	68.4	73.7	80.7	0.1
3.5	81.7	0.0	81.7	78.0	70.1	75.0	82.0	0.1
4.0	83.9	1.5	85.4	80.0	72.5	77.1	84.1	0.4
4.5	85.5	1.7	87.2	82.1	74.2	78.9	85.9	0.4
5.0	87.6	1.7	89.3	84.2	76.4	81.0	88.0	0.4
5.5	90.3	1.7	92.0	87.1	79.0	83.6	90.6	0.4
6.0	92.9	1.7	94.6	89.5	81.8	86.2	93.2	0.4
6.5	94.8	1.6	96.4	90.7	84.0	88.1	95.1	0.4
7.0	96.0	1.5	97.5	91.7	85.1	89.1	96.1	0.4
7.5	96.9	1.5	98.4	92.0	86.1	89.7	96.7	0.4
8.0	97.5	1.4	98.9	92.1	87.3	90.6	97.6	0.4
8.5	97.4	1.1	98.5	91.8	87.1	90.6	97.6	0.4
9.0	97.4	1.0	98.4	92.3	86.9	90.6	97.6	0.4
9.5	98.3	0.9	99.2	92.6	87.7	91.5	98.5	0.4
10.0	99.0	0.8	99.8	92.9	88.5	92.3	99.3	0.4
10.5	99.6	1.1	100.7	93.6	88.6	92.6	99.6	1.3
11.0	100.2	1.1	101.3	94.4	88.4	92.7	99.7	0.8
11.5	100.0	1.0	101.0	94.7	88.4	92.6	99.6	0.8
12.0	99.8	0.8	100.6	94.6	88.6	92.6	99.6	0.8
12.5	99.8	0.7	100.5	94.8	88.4	92.7	99.7	0.8
13.0	99.9	0.6	100.5	94.5	88.4	92.6	99.6	0.2
13.5	99.7	1.3	101.0	94.3	87.9	92.2	99.2	1.1
14.0	99.6	1.1	100.7	94.4	87.5	92.1	99.1	1.1
14.5	99.2	1.0	100.2	94.0	87.3	92.0	99.0	0.3
15.0	98.7	1.1	99.8	93.7	87.1	91.8	98.8	0.3
15.5	98.6	1.2	99.8	93.5	87.0	91.7	98.7	0.3
16.0	98.7	0.9	99.6	93.7	86.9	91.7	98.7	0.3
16.5	99.6	0.7	100.3	94.1	87.7	92.4	99.4	0.3
17.0	100.3	0.0	100.3	94.2	88.4	93.1	100.1	0.1
17.5	100.3	0.6	100.9	94.1	88.2	93.0	100.0	0.8
18.0	99.9	0.6	100.5	93.7	87.8	92.7	99.7	0.4
18.5	99.2	0.8	100.0	93.1	87.3	92.3	99.3	0.4
19.0	98.4	0.8	99.2	92.7	86.3	91.6	98.6	0.4
19.5	98.2	0.8	99.0	92.9	86.0	91.3	98.3	0.4
20.0	97.7	0.5	98.2	93.7	84.9	90.6	97.6	2.4
20.5	98.9	0.9	99.8	93.5	86.0	91.9	98.9	2.4
21.0	99.7	0.9	100.6	93.0	86.9	92.7	99.7	2.4
21.5	99.5	0.9	100.4	92.4	86.6	92.5	99.5	2.4
22.0	99.3	1.0	100.3	91.8	86.8	92.4	99.4	2.4
22.5	99.2	1.0	100.2	91.4	86.9	92.4	99.4	2.4
23.0	98.8	1.0	99.8	91.3	86.6	92.0	99.0	2.4
23.5	98.9	1.0	99.9	91.6	86.7	92.1	99.1	2.4
24.0	99.9	1.0	100.9	91.7	88.0	93.4	100.4	2.4
24.5	100.0	1.1	101.1	91.4	87.8	93.4	100.4	2.4
25.0	99.9	1.1	101.0	91.1	87.5	93.3	100.3	2.4
25.5	99.4	1.1	100.5	90.9	86.7	92.8	99.8	2.4
26.0	99.5	1.1	100.6	91.2	86.6	92.8	99.8	2.4
26.5	99.5	1.1	100.6	91.5	86.8	92.8	99.8	2.4
27.0	99.7	1.2	100.9	91.2	87.0	93.1	100.1	2.4
27.5	100.3	1.1	101.4	91.4	87.6	93.7	100.7	2.4
28.0	99.9	1.1	101.0	91.3	87.1	93.3	100.3	2.4
28.5	100.4	1.1	101.5	91.7	87.9	93.9	100.9	1.1
29.0	100.6	1.2	101.8	91.5	88.1	94.1	101.1	1.1

29.5	100.8	1.3	102.1	91.4	88.4	94.3	101.3	2.4
30.0	100.6	1.2	101.8	91.6	88.2	94.1	101.1	2.4
30.5	100.8	1.2	102.0	91.9	88.6	94.5	101.5	2.4
31.0	101.1	1.1	102.2	92.0	89.0	94.8	101.8	1.3
31.5	100.8	1.3	102.1	91.9	88.5	94.3	101.3	1.3
32.0	100.1	1.5	101.6	91.7	87.5	93.4	100.4	1.3
32.5	100.1	1.5	101.6	91.7	87.7	93.5	100.5	1.3
33.0	100.6	1.4	102.0	92.0	88.3	94.0	101.0	1.3
33.5	100.9	1.6	102.5	92.4	88.6	94.3	101.3	1.3
34.0	100.6	1.5	102.1	92.1	88.2	94.1	101.1	1.3
34.5	101.0	1.7	102.7	92.4	88.8	94.7	101.7	1.3
35.0	101.1	1.7	102.8	92.5	88.8	94.7	101.7	1.3
35.5	100.8	1.7	102.5	92.2	88.2	94.1	101.1	1.3
36.0	101.4	1.8	103.2	92.0	88.6	94.8	101.8	1.3
36.5	100.8	1.8	102.6	91.5	88.0	94.1	101.1	1.3
37.0	100.3	1.7	102.0	91.4	87.5	93.7	100.7	1.3
37.5	100.5	1.8	102.3	91.6	87.6	93.7	100.7	1.3
38.0	100.5	1.9	102.4	91.8	87.6	93.8	100.8	1.3
38.5	100.8	1.9	102.7	92.0	88.0	94.2	101.2	1.3
39.0	101.0	1.8	102.8	92.2	88.0	94.4	101.4	1.3
39.5	101.5	1.8	103.3	92.2	88.4	94.9	101.9	1.3
40.0	101.7	1.7	103.4	92.2	88.6	95.1	102.1	1.3
40.5	101.8	1.8	103.6	92.2	88.8	95.2	102.2	1.3
41.0	102.1	1.5	103.6	92.2	89.1	95.6	102.6	1.3
41.5	101.9	1.8	103.7	92.2	89.0	95.3	102.3	1.3
42.0	101.9	1.8	103.7	92.3	89.1	95.4	102.4	1.3
42.5	102.2	1.9	104.1	92.1	89.1	95.7	102.7	1.3
43.0	102.3	1.8	104.1	92.0	89.4	95.9	102.9	1.3
43.5	102.7	1.5	104.2	92.2	89.7	96.3	103.3	1.3
44.0	103.1	1.2	104.3	92.5	90.0	96.6	103.6	1.3
44.5	103.0	0.0	103.0	92.2	89.8	96.6	103.6	0.1
45.0	102.9	0.9	103.8	92.3	89.8	96.6	103.6	0.9
45.5	103.0	0.7	103.7	92.4	89.7	96.6	103.6	0.2
46.0	102.7	0.5	103.2	92.4	89.2	96.1	103.1	0.2
46.5	102.7	1.3	104.0	92.2	89.0	96.1	103.1	1.2
47.0	102.6	1.3	103.9	91.8	88.8	96.0	103.0	1.2
47.5	102.6	1.1	103.7	91.7	88.8	96.2	103.2	1.2
48.0	102.7	1.3	104.0	92.0	89.2	96.4	103.4	1.2
48.5	103.1	1.1	104.2	92.4	89.7	96.7	103.7	1.2
49.0	103.3	1.0	104.3	92.7	89.8	96.8	103.8	0.7
49.5	103.3	1.0	104.3	93.1	89.8	96.8	103.8	0.7
50.0	103.5	0.9	104.4	93.2	89.8	96.8	103.8	0.8
50.5	103.5	0.7	104.2	93.0	89.7	96.8	103.8	0.8
51.0	103.4	0.8	104.2	92.9	89.7	96.8	103.8	0.8
51.5	103.1	0.5	103.6	92.6	89.4	96.6	103.6	0.3
52.0	103.0	0.0	103.0	92.4	89.3	96.4	103.4	0.1

MAXIMUM VALUES IN BANDS, PNLC =105.7

50	63	80	100	125	160	200	250	315	400
87.0	87.7	89.3	86.2	84.3	83.7	83.1	88.0	84.6	85.6
84.8	82.6	83.6	82.8	79.9	79.6	79.4	79.4	78.7	77.5
75.5	72.0	65.0	53.4						

SPECTRUM FOR MAX PNLT

77.8	80.6	82.3	79.9	75.4	73.8	81.3	85.8	83.8	78.1
77.2	79.7	77.7	77.8	78.7	79.6	79.1	79.0	78.4	77.2
75.2	71.7	64.7	53.0						

P. T.	TIME	MAX	D10	I-10	D20	I-20	D/15+M	D/30+M	A-115
	38.0	1.9							

PNL	50.0	103.5	46.0	117.4	48.5	117.4	108.4	105.6
PNLT	50.0	104.4	46.5	118.6	48.5	118.6	109.3	106.5
A-LEV	44.0	90.0	46.5	104.8	49.0	104.8	94.9	92.1
N-LEV	49.0	103.8	46.0	117.7	48.5	117.7	108.7	105.9

EPNL =103.6



## MAN ACOUSTICS, EVENT #22

T	PNL	P.T.	PNLT	OA	A-LEV	D-LEV	N-LEV	BAND #
0.0	80.3	1.9	82.2	77.4	68.4	73.7	80.7	0.7
0.5	85.2	1.7	86.9	82.0	72.6	78.2	85.2	0.7
1.0	89.4	1.1	90.5	86.2	76.8	82.4	89.4	0.7
1.5	91.2	1.2	92.4	88.2	79.1	84.5	91.5	0.7
2.0	91.8	1.3	93.1	89.0	79.6	85.1	92.1	0.7
2.5	91.7	1.2	92.9	89.2	79.8	85.2	92.2	0.7
3.0	91.6	1.1	92.7	89.0	79.6	85.0	92.0	0.7
3.5	91.6	1.1	92.7	88.9	79.0	84.7	91.7	0.7
4.0	91.6	1.1	92.7	89.0	78.8	84.6	91.6	0.7
4.5	91.8	1.1	92.9	89.1	79.6	85.0	92.0	0.4
5.0	92.1	1.2	93.3	89.0	80.3	85.3	92.3	0.4
5.5	92.5	1.3	93.8	89.3	80.6	85.6	92.6	0.4
6.0	93.0	1.4	94.4	89.7	81.0	86.1	93.1	0.4
6.5	93.5	1.5	95.0	90.4	81.8	86.7	93.7	0.4
7.0	93.9	1.6	95.5	90.8	81.9	87.1	94.1	0.4
7.5	94.1	1.6	95.7	91.1	81.7	87.2	94.2	0.4
8.0	94.2	1.6	95.8	91.3	82.2	87.5	94.5	0.4
8.5	94.3	1.5	95.8	91.4	82.4	87.6	94.6	0.4
9.0	94.2	1.5	95.7	91.3	81.6	87.2	94.2	0.4
9.5	94.1	1.5	95.6	91.2	81.5	87.0	94.0	0.4
10.0	94.2	1.3	95.5	91.0	81.9	87.3	94.3	0.4
10.5	94.2	1.5	95.7	90.8	82.3	87.5	94.5	0.4
11.0	94.2	1.6	95.8	90.3	82.5	87.6	94.6	0.4
11.5	94.5	1.6	96.1	90.5	82.6	87.8	94.8	0.4
12.0	94.7	1.6	96.3	91.1	82.4	87.9	94.9	0.4
12.5	95.0	1.6	96.6	91.0	82.6	88.1	95.1	0.4
13.0	95.4	1.7	97.1	91.2	83.2	88.4	95.4	0.4
13.5	95.9	1.8	97.7	91.5	83.5	88.7	95.7	0.4
14.0	96.4	1.7	98.1	91.7	83.8	89.0	96.0	0.4
14.5	96.7	1.9	98.6	91.5	84.2	89.3	96.3	0.7
15.0	96.8	2.0	98.8	91.3	84.1	89.4	96.4	0.7
15.5	96.7	2.1	98.8	91.1	84.2	89.5	96.5	0.7
16.0	96.8	2.2	99.0	91.0	84.5	89.9	96.9	0.7
16.5	97.1	2.2	99.3	90.9	85.0	90.3	97.3	0.7
17.0	97.3	2.2	99.5	90.8	85.2	90.6	97.6	0.7
17.5	97.5	2.2	99.7	90.8	85.5	91.0	98.0	0.7
18.0	98.3	2.2	100.5	91.1	86.5	91.9	98.9	0.7
18.5	99.0	2.0	101.0	91.4	87.1	92.7	99.7	0.4
19.0	99.6	2.2	101.8	91.8	87.5	93.3	100.3	0.7
19.5	100.3	2.2	102.5	91.9	88.0	94.0	101.0	0.7
20.0	101.0	2.2	103.2	91.8	88.6	94.7	101.7	0.7
20.5	101.5	2.0	103.5	91.5	89.1	95.3	102.3	0.7
21.0	101.7	1.8	103.5	91.3	89.2	95.4	102.4	0.7
21.5	102.0	1.8	103.8	91.7	89.7	95.6	102.6	0.4
22.0	102.3	2.0	104.3	92.1	90.0	95.9	102.9	0.4
22.5	102.4	2.3	104.7	92.5	90.2	96.0	103.0	0.4
23.0	102.2	2.4	104.6	93.0	89.7	95.6	102.6	0.4
23.5	102.5	2.5	105.0	93.3	89.6	95.8	102.8	0.4
24.0	102.7	2.5	105.2	93.2	89.6	96.1	103.1	0.3
24.5	102.8	2.6	105.4	93.4	89.6	96.1	103.1	0.3
25.0	102.8	2.5	105.3	93.1	89.5	96.1	103.1	0.3
25.5	103.1	2.4	105.5	93.0	89.9	96.5	103.5	0.4
26.0	103.2	2.3	105.5	93.0	90.2	96.7	103.7	0.4
26.5	103.2	2.3	105.5	93.2	90.3	96.7	103.7	0.3
27.0	103.4	2.0	105.4	93.0	90.7	97.0	104.0	0.4
27.5	103.3	2.0	105.3	92.7	90.6	97.1	104.1	0.4
28.0	103.4	1.7	105.1	92.5	90.5	97.1	104.1	0.4
28.5	103.3	1.8	105.1	92.5	90.5	97.0	104.0	0.7
29.0	103.1	1.8	104.9	92.5	90.4	96.8	103.8	0.7



29.5	102.9	2.0	104.9	92.4	90.2	96.6	103.6	0.7
30.0	102.8	2.1	104.9	92.5	90.2	96.5	103.5	0.7
30.5	103.0	2.1	105.1	92.6	90.3	96.7	103.7	0.7
31.0	102.8	2.2	105.0	92.6	90.2	96.6	103.6	0.7
31.5	102.9	2.2	105.1	92.5	90.3	96.7	103.7	0.7
32.0	102.7	2.2	104.9	92.5	90.3	96.5	103.5	0.7
32.5	103.0	2.0	105.0	92.3	90.4	96.8	103.8	0.7
33.0	102.9	2.0	104.9	92.2	90.4	96.8	103.8	0.7
33.5	103.2	2.0	105.2	92.3	90.8	97.2	104.2	0.7
34.0	103.2	1.9	105.1	92.4	90.7	97.1	104.1	0.7
34.5	103.0	1.9	104.9	92.4	90.6	97.1	104.1	0.7
35.0	103.1	1.8	104.9	92.5	90.8	97.2	104.2	0.7
35.5	102.6	1.7	104.3	92.5	90.4	96.5	103.5	0.7
36.0	102.6	1.7	104.3	92.2	90.3	96.4	103.4	0.7
36.5	102.6	1.7	104.3	92.0	90.4	96.5	103.5	0.7
37.0	102.7	1.7	104.4	92.0	90.5	96.8	103.8	0.7
37.5	102.9	1.7	104.6	91.9	90.6	96.9	103.9	0.7
38.0	103.0	1.8	104.8	91.8	90.6	97.1	104.1	0.7
38.5	103.1	1.7	104.8	91.7	90.7	97.3	104.3	0.7
39.0	102.9	1.7	104.6	91.6	90.5	97.2	104.2	0.7
39.5	102.8	1.8	104.6	92.0	90.6	97.1	104.1	0.7
40.0	102.9	2.0	104.9	92.3	90.5	97.1	104.1	0.7
40.5	102.6	2.1	104.7	92.3	90.1	96.8	103.8	0.7
41.0	102.7	2.1	104.8	92.4	90.1	96.9	103.9	0.7
41.5	102.3	2.2	104.5	92.5	89.9	96.4	103.4	0.7
42.0	102.0	2.1	104.1	92.6	89.8	96.0	103.0	0.7
42.5	102.1	2.1	104.2	92.4	90.1	96.1	103.1	0.7
43.0	102.2	2.1	104.3	92.6	90.3	96.2	103.2	0.7
43.5	102.2	2.3	104.5	92.9	90.3	96.2	103.2	0.7
44.0	101.9	2.4	104.3	93.0	90.1	96.0	103.0	0.7
44.5	101.5	2.3	103.8	92.4	89.5	95.5	102.5	0.7
45.0	101.2	2.4	103.6	92.2	89.2	95.1	102.1	0.7
45.5	101.4	2.4	103.8	92.3	89.4	95.2	102.2	0.7
46.0	101.7	2.3	104.0	92.2	89.8	95.5	102.5	0.7
46.5	102.1	2.3	104.4	92.5	90.3	96.1	103.1	0.7
47.0	102.5	2.3	104.8	92.6	90.4	96.4	103.4	0.7
47.5	102.2	2.5	104.7	92.7	90.5	96.1	103.1	0.7
48.0	102.3	2.3	104.6	92.7	90.5	96.2	103.2	0.7
48.5	102.4	2.3	104.7	92.6	90.4	96.1	103.1	0.7
49.0	102.2	2.3	104.5	92.5	90.2	95.9	102.9	0.7
49.5	102.4	2.4	104.8	92.4	90.1	96.1	103.1	0.7
50.0	102.5	2.4	104.9	92.2	89.9	96.3	103.3	0.7
50.5	102.8	2.3	105.1	92.2	90.1	96.6	103.6	0.7
51.0	103.1	2.2	105.3	92.4	90.3	96.9	103.9	0.7
51.5	103.5	2.1	105.6	92.8	90.6	97.3	104.3	0.7
52.0	103.5	2.0	105.5	93.0	90.6	97.2	104.2	0.4
52.5	103.7	2.2	105.9	93.0	90.8	97.5	104.5	0.4

MAXIMUM VALUES IN BANDS, PNLC =105.4

50	63	80	100	125	160	200	250	315	400
81.0	75.7	82.7	88.6	83.7	81.9	89.0	80.5	84.5	83.1
80.6	80.7	81.3	82.2	82.6	82.0	81.6	80.9	79.0	77.4
73.6	69.8	63.9	54.5						

SPECTRUM FOR MAX PNLT

68.2	68.3	80.1	81.4	68.4	81.5	86.2	79.5	73.3	78.1
77.0	80.1	80.1	79.9	80.9	81.6	81.6	80.9	78.7	76.0
71.5	66.9	59.7	50.2						

TIME MAX. D10 I-10 D20 I-20 D/15+M D/30+M A-118

P. T.	24.5	2.6						
PNL	52.5	103.7	46.5	118.2	53.0	118.3	108.6	106.2
PNLT	52.5	103.9	42.0	120.3	53.0	120.4	110.4	108.4
A-LEV	33.0	90.8	47.0	105.7	52.5	105.8	95.8	93.2
N-LEV	52.5	104.5	42.5	119.0	53.0	119.1	109.0	107.0

EPNL =110.3

## MAN ACOUSTICS, EVENT #23

T	PNL	P.T.	PNLT	DA	A-LEV	D-LEV	N-LEV	BAND #
0.0	84.7	0.5	85.2	84.6	69.2	78.0	85.0	0.4
0.5	86.0	0.6	86.6	85.4	70.7	79.1	86.1	0.4
1.0	86.7	0.5	87.2	86.0	71.7	79.8	86.8	0.4
1.5	87.4	0.0	87.4	86.1	72.8	80.5	87.5	0.1
2.0	87.2	0.0	87.2	86.8	72.4	80.4	87.4	0.1
2.5	87.2	0.0	87.2	86.8	72.1	80.3	87.3	0.1
3.0	87.1	0.0	87.1	86.9	72.0	80.3	87.3	0.1
3.5	87.4	0.0	87.4	87.5	71.4	80.4	87.4	0.1
4.0	87.3	0.0	87.3	87.7	71.0	80.4	87.4	0.1
4.5	87.3	0.6	87.9	87.9	71.0	80.5	87.5	2.4
5.0	87.2	0.6	87.8	87.7	70.9	80.4	87.4	2.4
5.5	87.4	0.7	88.1	88.0	71.2	80.7	87.7	0.8
6.0	87.4	0.8	88.2	88.3	71.4	80.9	87.9	0.8
6.5	87.4	0.7	88.1	88.3	71.5	81.0	88.0	0.8
7.0	87.5	0.8	88.3	89.0	71.6	81.3	88.3	0.8
7.5	87.8	0.7	88.5	89.0	72.0	81.5	88.5	0.8
8.0	88.1	0.7	88.8	89.3	72.3	81.8	88.8	0.8
8.5	88.7	0.7	89.6	89.9	72.9	82.4	89.4	0.8
9.0	89.3	0.7	90.0	89.9	73.3	82.7	89.7	0.8
9.5	89.9	0.7	90.6	90.2	73.9	83.1	90.1	0.8
10.0	90.6	0.8	91.4	90.1	75.1	83.7	90.7	0.8
10.5	91.2	0.7	91.9	90.1	76.3	84.5	91.5	0.8
11.0	91.6	0.7	92.3	90.3	76.9	84.8	91.8	0.8
11.5	91.9	0.7	92.6	90.6	77.0	85.0	92.0	0.8
12.0	92.1	0.7	92.8	91.4	76.5	85.1	92.1	0.8
12.5	92.1	0.5	92.6	91.8	76.1	85.0	92.0	0.8
13.0	92.1	0.0	92.1	92.3	75.8	85.1	92.1	0.1
13.5	92.6	0.0	92.6	92.7	76.4	85.5	92.5	0.1
14.0	93.2	0.0	93.2	92.7	77.5	85.8	92.8	0.1
14.5	93.7	0.0	93.7	92.9	78.3	86.1	93.1	0.1
15.0	93.9	0.5	94.4	93.1	78.5	86.4	93.4	0.8
15.5	94.1	0.5	94.6	93.3	78.3	86.5	93.5	0.8
16.0	94.6	0.0	94.6	93.5	79.0	87.0	94.0	0.1
16.5	94.8	0.0	94.8	93.4	79.8	87.4	94.4	0.1
17.0	95.7	0.0	95.7	93.0	81.5	88.3	95.3	0.1
17.5	95.9	0.0	95.9	92.8	82.4	88.4	95.4	0.1
18.0	96.2	0.0	96.2	91.9	83.1	88.7	95.7	0.1
18.5	96.6	0.0	96.6	90.5	83.9	89.1	96.1	0.1
19.0	97.3	0.5	97.8	89.5	84.7	89.8	96.8	0.8
19.5	97.4	0.0	97.4	89.5	84.8	90.2	97.2	0.1
20.0	97.5	0.7	98.2	89.1	84.7	90.3	97.3	1.0
20.5	97.0	0.6	97.6	88.3	84.4	89.9	96.9	0.7
21.0	96.4	0.7	97.1	87.4	83.6	89.3	96.3	0.4
21.5	95.2	1.1	96.3	86.5	82.6	88.2	95.2	0.4
22.0	94.0	1.5	95.5	85.6	81.4	87.0	94.0	0.4
22.5	92.9	1.6	94.5	84.7	80.0	85.8	92.8	0.4
23.0	91.6	1.6	93.2	84.3	78.4	84.5	91.5	0.4
23.5	90.8	1.5	92.3	83.4	77.5	83.7	90.7	0.4
24.0	89.6	1.6	91.2	83.0	76.2	82.6	89.6	0.4
24.5	88.6	1.5	90.1	82.4	75.2	81.5	88.5	0.4
25.0	87.7	1.3	89.0	82.2	74.1	80.6	87.6	0.4
25.5	86.7	1.5	88.2	82.6	73.0	79.7	86.7	0.4
26.0	85.6	1.5	87.1	82.3	71.8	78.7	85.7	0.4
26.5	84.6	1.5	86.1	81.9	70.8	77.8	84.8	0.4
27.0	84.3	1.6	85.9	81.8	70.2	77.4	84.4	0.4

MAXIMUM VALUES IN BANDS, PNLC = 99.2

A-120

50 63 80 100 125 160 200 250 315 400

87.0	88.0	85.9	85.8	84.0	79.7	77.7	77.5	73.1	77.0
76.2	76.6	76.6	77.0	76.2	73.5	72.5	70.4	69.9	68.2
68.8	69.0	67.6	65.1						

SPECTRUM FOR MAX PNLT

83.4	77.5	74.6	72.4	71.7	74.1	77.4	76.9	70.3	77.0
75.5	76.1	75.5	76.4	75.7	73.0	72.0	70.4	69.9	68.2
68.8	69.0	67.5	65.1						

	TIME	MAX.	D10	I-10	D20	I-20	D/15+M	D/30+M
P. T.	22.5	1.6						
PNL	20.0	97.5	18.5	106.4	27.0	106.8	98.4	97.0
PNLT	20.0	98.2	19.0	106.9	27.0	107.3	99.2	97.7
A-LEV	19.5	84.8	15.5	92.5	27.0	92.9	84.9	84.3
N-LEV	20.0	97.3	22.5	106.4	27.0	106.6	99.1	96.8

EPNL = 96.9

## MAN ACOUSTICS, EVENT #24

T	PNL	P.T.	PNLT	DA	A-LEV	D-LEV	N-LEV	BAND #
0.0	75.1	1.7	76.8	73.8	63.8	69.5	76.5	0.4
0.5	79.4	1.5	80.9	77.4	67.5	73.1	80.1	0.4
1.0	85.3	1.7	87.0	82.3	72.6	78.2	85.2	0.4
1.5	87.6	1.9	89.5	84.5	74.6	80.1	87.1	0.4
2.0	88.7	1.9	90.6	85.6	75.8	81.1	88.1	0.4
2.5	89.2	2.0	91.2	86.3	76.1	81.6	88.6	0.4
3.0	89.9	2.0	91.9	86.9	76.5	82.2	89.2	0.4
3.5	90.3	2.0	92.3	87.3	76.8	82.7	89.7	0.4
4.0	90.7	2.0	92.7	87.9	76.9	83.1	90.1	0.4
4.5	91.1	2.1	93.2	88.5	77.5	83.6	90.6	0.4
5.0	91.3	2.0	93.3	88.5	78.6	84.1	91.1	0.4
5.5	91.6	2.0	93.6	88.3	79.0	84.4	91.4	0.4
6.0	91.9	2.0	93.9	88.6	79.6	84.8	91.8	0.4
6.5	92.0	2.0	94.0	89.0	80.3	85.2	92.2	0.4
7.0	92.3	2.0	94.3	89.4	81.0	85.8	92.8	0.4
7.5	92.4	2.0	94.4	89.5	80.8	85.7	92.7	0.4
8.0	92.5	2.0	94.5	89.4	80.3	85.4	92.4	0.4
8.5	92.6	1.9	94.5	89.4	80.3	85.4	92.4	0.4
9.0	92.4	1.9	94.3	89.4	79.9	85.1	92.1	0.4
9.5	92.5	1.8	94.3	89.5	79.3	85.0	92.0	0.4
10.0	93.0	1.7	94.7	89.7	80.3	85.8	92.8	0.4
10.5	93.4	1.7	95.1	89.6	81.5	86.6	93.6	0.4
11.0	94.1	1.7	95.8	89.9	82.6	87.3	94.3	0.4
11.5	94.3	1.7	96.0	90.0	82.7	87.5	94.5	0.4
12.0	94.1	1.7	95.8	89.8	82.5	87.4	94.4	0.4
12.5	94.0	1.7	95.7	89.9	82.2	87.2	94.2	0.4
13.0	93.6	1.7	95.3	90.0	81.9	86.9	93.9	0.4
13.5	93.6	1.8	95.4	90.3	81.9	86.9	93.9	0.4
14.0	93.7	1.7	95.4	90.3	82.0	87.0	94.0	0.4
14.5	93.5	1.7	95.2	90.1	81.6	86.8	93.8	0.4
15.0	93.5	1.8	95.3	89.9	81.1	86.5	93.5	0.4
15.5	93.5	1.8	95.3	90.2	80.8	86.4	93.4	0.4
16.0	93.8	1.8	95.6	90.5	80.6	86.5	93.5	0.4
16.5	94.2	2.0	96.2	90.8	81.0	86.9	93.9	0.4
17.0	94.4	2.0	96.4	91.0	80.9	87.0	94.0	0.4
17.5	94.6	2.0	96.6	91.2	81.1	87.2	94.2	0.4
18.0	95.1	2.1	97.2	91.2	82.1	87.9	94.9	0.4
18.5	95.8	2.0	97.8	90.9	83.6	88.9	95.9	0.4
19.0	96.0	2.1	98.1	90.8	83.9	89.2	96.2	0.4
19.5	96.3	2.1	98.4	90.9	84.3	89.6	96.6	0.4
20.0	96.4	2.0	98.4	90.9	84.5	89.8	96.8	0.4
20.5	96.8	2.0	98.8	91.1	84.7	90.0	97.0	0.4
21.0	97.2	2.0	99.2	91.4	84.7	90.0	97.0	0.4
21.5	97.7	2.0	99.7	91.3	84.8	90.4	97.4	0.4
22.0	97.8	1.9	99.7	90.9	85.5	90.9	97.9	0.4
22.5	98.0	1.9	99.9	90.9	85.7	91.1	98.1	0.7
23.0	98.2	1.9	100.1	90.8	86.0	91.5	98.5	0.7
23.5	98.7	1.9	100.6	91.1	86.8	92.0	99.0	0.7
24.0	99.0	1.9	100.9	91.2	87.4	92.7	99.7	0.7
24.5	99.5	1.8	101.3	91.2	87.4	93.0	100.0	0.7
25.0	100.2	1.9	102.1	91.6	87.8	93.5	100.5	0.4
25.5	100.7	2.3	103.0	92.1	87.8	93.8	100.8	0.4
26.0	101.2	2.6	103.8	92.8	88.1	94.2	101.2	0.4
26.5	101.4	2.8	104.2	93.4	88.1	94.4	101.4	0.4
27.0	101.6	3.0	104.6	94.2	88.3	94.8	101.8	0.4
27.5	101.7	3.1	104.8	94.7	88.3	94.9	101.9	0.4
28.0	101.8	3.1	104.9	95.4	88.3	95.0	102.0	0.3
28.5	101.9	3.2	105.1	95.2	88.3	95.2	102.2	0.3
29.0	101.7	3.3	105.0	95.1	88.0	94.8	101.8	0.3

A-122



29.5	101.4	3.3	104.7	94.7	87.8	94.6	101.6	0.3
30.0	101.3	3.2	105.0	93.9	88.4	95.0	102.0	0.3
30.5	102.1	2.9	105.0	93.2	88.7	95.3	102.3	0.3
31.0	102.2	1.6	103.8	92.7	89.0	95.5	102.5	0.3
31.5	102.2	1.4	103.6	92.3	89.2	95.8	102.8	0.3
32.0	102.2	1.3	103.5	92.3	89.5	95.8	102.8	0.6
32.5	102.0	1.5	103.5	92.3	89.7	95.8	102.8	0.6
33.0	101.6	1.7	103.3	92.3	89.4	95.3	102.3	0.6
33.5	101.4	1.8	103.2	92.5	89.3	95.1	102.1	0.6
34.0	100.8	1.8	102.6	92.3	88.9	94.6	101.6	0.6
34.5	100.6	1.8	102.4	91.7	88.7	94.5	101.5	0.6
35.0	100.0	1.9	101.9	91.7	88.4	93.9	100.9	0.6
35.5	99.7	1.8	101.5	91.6	88.2	93.6	100.6	0.3
36.0	99.3	2.0	101.3	92.0	87.9	93.1	100.1	0.3
36.5	99.5	2.1	101.6	91.5	87.9	93.4	100.4	0.3
37.0	99.1	2.2	101.3	91.5	87.7	93.1	100.1	0.3
37.5	99.1	2.2	101.3	91.6	87.7	93.1	100.1	0.3
38.0	98.9	2.3	101.2	91.9	87.7	92.9	99.9	0.3
38.5	98.6	2.4	101.0	91.7	87.4	92.6	99.6	0.3
39.0	98.2	2.4	100.6	91.3	87.2	92.4	99.4	0.3
39.5	97.9	2.4	100.3	91.6	86.9	92.0	99.0	0.3
40.0	97.7	2.5	100.2	91.7	86.6	91.8	98.8	0.3
40.5	97.5	2.5	100.0	91.9	86.6	91.5	98.5	0.3
41.0	97.5	2.4	99.9	91.8	86.6	91.3	98.3	0.3
41.5	97.7	2.3	100.0	91.4	87.0	91.6	98.6	0.3
42.0	97.8	2.3	100.1	91.2	87.0	91.5	98.5	0.3
42.5	97.6	2.3	99.9	91.2	86.8	91.2	98.2	0.3
43.0	97.6	2.3	99.9	91.3	86.6	91.2	98.2	0.3
43.5	97.3	2.3	99.6	91.6	86.3	90.8	97.8	0.3
44.0	96.7	2.3	99.0	91.9	85.8	90.3	97.3	0.3
44.5	96.4	2.4	98.8	91.9	85.3	90.0	97.0	0.3
45.0	96.0	2.4	98.4	91.6	84.8	89.7	96.7	0.3
45.5	95.7	2.3	98.0	91.3	84.5	89.3	96.3	0.3
46.0	95.7	2.3	98.0	91.1	84.2	89.2	96.2	0.3
46.5	95.4	2.3	97.7	90.5	83.8	89.0	96.0	0.3
47.0	95.4	2.3	97.7	90.1	83.6	89.0	96.0	0.3
47.5	95.5	2.3	97.8	89.9	83.8	88.9	95.9	0.3
48.0	95.5	2.3	97.8	89.6	83.7	88.9	95.9	0.3
48.5	95.6	2.3	97.9	89.5	83.8	89.0	96.0	0.3
49.0	95.7	2.4	98.1	89.5	84.4	89.3	96.3	0.3
49.5	96.4	2.3	98.7	89.0	85.4	90.3	97.3	0.3
50.0	96.3	2.3	98.6	88.8	85.3	90.1	97.1	0.3
50.5	95.8	2.2	98.0	88.8	85.0	89.5	96.5	0.3
51.0	95.5	2.0	97.5	88.6	84.3	89.1	96.1	0.3
51.5	95.0	2.0	97.0	88.6	83.8	88.6	95.6	0.3
52.0	94.2	1.9	96.1	88.2	83.3	87.9	94.9	0.3
52.5	93.8	1.9	95.7	88.1	83.3	87.5	94.5	0.3

MAXIMUM VALUES IN BANDS: PNLC =104.3

50	63	80	100	125	160	200	250	315	400
81.2	70.9	89.3	92.4	80.3	87.0	87.6	85.7	83.2	80.8
79.5	79.0	80.1	80.6	81.3	80.7	80.7	79.0	76.5	74.0
69.6	66.9	62.5	53.1						

SPECTRUM FOR MAX PNLT

68.9	65.0	63.6	91.9	78.3	72.7	75.8	83.6	78.7	80.0
75.4	75.0	78.0	78.7	78.4	77.3	78.0	77.7	76.4	73.0
69.3	66.9	61.7	51.7						

TIME	MAX	D10	I-10	D20	I-20	D/15+M	D/30+M
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A-123



P. T.	29.0	3.3						
PNL	31.0	102.2	46.0	114.8	52.0	114.9	107.1	104.6
PNLT	28.5	105.1	42.0	117.0	52.0	117.2	109.6	107.5
A-LEV	32.5	89.7	43.0	102.6	52.0	102.7	94.3	92.1
N-LEV	31.5	102.8	42.5	115.2	52.0	115.4	107.3	105.2

EPNL =107.0

APPENDIX B

FAA/TSC Data Set

# COMPARISON OF TSC AND BBN HELICOPTER ANALYSES

Run	EPNL		PNLTM		Max rms TSC dB	A-level BBN dB	T.C. BBN dB	T for A max BBN s		TSC Time OH s		TSC $\Delta T$ for A max to OH s	
	TSC dB	BBN dB	TSC dB	BBN dB				s	s	s	s		
CH47C													
12	107.6	106.4	108.6	108.5	95.8	95.1	0.6	49.5	17.5	0			
18	106.9	105.7	105.0	105.2	91.5	90.1	1.0	38.5	41.5	-3.5			
20	107.5	107.0	108.2	108.1	95.1	94.9	0.6	28.0	18.5	0.5			
23	-	100.8	99.7	99.8	84.2	83.7	0.7	37.0	34.5	2.5			
24	106.5	106.0	106.1	105.6	91.1	90.8	1.3	17.0	20	-12.5			
27	108.7	108.1	110.6	109.9	95.2	94.2	1.6	11.5	13	-9.5			
28	109.0	108.6	111.4	110.2	97.6	95.2	0.8	8.5	12.5	-7.5			
29	111.3	110.9	113.5	113.3	99.3	97.9	1.2	14.5	12.5	-6.5			
35	108.1	106.4	107.6	106.9	94.4	93.2	0.9	33.0	14	1.0			
Bell 206L													
46	89.0	87.8	87.9	87.7	76.4	74.4	1.1	23.0	-	0			
71	-	86.2	89.1	88.0	75.4	73.5	1.7	13.0	29.0	0			

# COMPARISON - TSC AND BBN HELICOPTER ANALYSES

Run	EPNL		PNLTM		Max rms TSC dB	A-level BBN dB	T.C BBN dB	T for A max BBN s	TSC Time OH s	TSC $\Delta T$ for A max to OH s
	TSC dB	BBN dB	TSC dB	BBN dB						
Bell										
212										
24	99.3		98.0		84.2				31.5	-3.5
27	100.6	99.2	99.3	98.2	85.2	83.3	1.2	28.0	26.5	-3.0
31	96.0	94.3	92.7	92.0	78.8	78.0	0.7	22.5	47	-3.0
32	96.7	94.2	97.2	96.1	83.7	82.0	0.7	8.5	19.5	-2.0
36	98.3	96.3	99.9	97.5	86.0	83.5	0.6	16.0	21	-2.5
37	99.3		100.2		85.5				16.5	-1.5
43	98.4	96.4	96.9	96.0	82.9	81.0	1.2	19.0	51	-8.5
S-61										
16	91.7	91.8	92.7	94.1	80.4	80.0	1.7	19.5	20.0	1.5
18	92.4	91.6	91.3	92.8	80.2	79.7	1.7	16.5	19.5	0
20	95.1	95.2	97.0	96.5	84.6	83.1	0.7	11.0	10.5	2.5
34	91.4	92.2	94.9	96.0	83.5	83.1	1.7	6.0	6.5	0

COMPARISON - TSC AND BBN HELICOPTER ANALYSES

Run	EPNL		PNLTM		Max rms TSC dB	A-level BBN dB	T.C. BBN dB	T for A max BBN s		TSC Time OH s	TSC ΔT for A max to OH s	
	TSC dB	BBN dB	TSC dB	BBN dB				T for A max BBN s	TSC Time OH s		TSC ΔT for A max to OH s	
S-64												
50	96.8	96.3	97.9	98.3	84.2	83.1	1.5	14.0		9.0	0	
51	99.4	99.1	102.3	101.5	87.0	85.3	1.9	17.0		9.5	-0.5	
67	96.7	96.9	99.2	100.6	86.8	86.5	2.2	4.5		5.5	1.0	
74	100.0	100.3	101.3	101.4	86.0	85.4	2.0	10.0		13.5	-1.5	
78	98.1	98.8	102.9	103.4	88.2	87.4	2.5	3.5		6.0	-1.0	
Hughes 300C												
34	-	82.4	82.9	82.9	70.1	68.5	1.8	20.0		11	0.5	
44	82.2	81.1	82.9	82.0	71.1	69.4	1.0	14.0		15.5	2.0	
Hughes 500C												
58	87.3	87.6	87.8	89.0	76.0	75.5	1.6	14.0		15.5	0	
65	89.1	89.6	89.8	90.2	78.3	77.7	1.6	14.5		11.5	2.0	
109	88.9	89.3	90.8	92.0	79.5	78.9	1.8	14.0		14.0	0.5	
110	88.4	88.7	90.3	91.3	78.5	78.0	1.5	19.0		15.5	0.5	
Bell 47G												
19	91.0	90.5	91.6	91.5	78.5	77.0	1.2	17.0		6.0	-1.0	
29	91.6	92.5	91.9	94.2	78.5	77.9	3.3	11.0		6.5	0.5	
30	89.2	89.1	90.7	91.8	75.9	75.4	3.3	8.5		7.0	3.0	
41	88.5	88.5	90.8	90.0	78.5	76.1	1.3	8.5		11.5	0	

TSC CH-47C #12: 6 DEG APRCH, 60 KT, 400 FT

TIME	BRITISH			FRENCH		
	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE COEF (DB)	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE CORR (DB)
0.5	-19.1	.00	-20.5	-19.6	2.83	-0.2
1.0	-19.6	.00	-16.7	-19.4	2.68	-0.4
1.5	-18.5	.00	-20.3	-18.7	2.58	-0.5
2.0	-18.9	.00	-13.4	-18.9	2.65	-0.4
2.5	-18.9	.00	-21.8	-18.3	2.59	-0.5
3.0	-18.7	.00	-17.3	-18.7	2.95	0.0
3.5	-18.3	.00	-14.7	-17.7	2.80	-0.2
4.0	-18.1	.07	-11.4	-17.3	3.00	0.0
4.5	-18.3	.00	-16.3	-17.2	3.25	0.3
5.0	-17.7	.18	-7.4	-16.9	4.24	1.4
5.5	-17.5	.06	-12.0	-16.2	3.58	0.7
6.0	-17.7	.00	-14.4	-16.4	3.29	0.3
6.5	-17.4	.11	-9.4	-16.5	4.19	1.4
7.0	-16.5	.16	-7.9	-15.4	4.25	1.4
7.5	-15.7	.25	-5.9	-14.7	3.78	0.9
8.0	-16.2	.25	-6.0	-14.5	3.98	1.1
8.5	-15.9	.27	-5.6	-14.2	4.36	1.6
9.0	-15.9	.24	-6.1	-14.0	4.66	1.9
9.5	-16.1	.21	-6.7	-13.8	3.92	1.1
10.0	-16.6	.15	-8.0	-14.3	4.36	1.6
10.5	-16.4	.17	-7.6	-13.7	4.62	1.9
11.0	-17.2	.08	-10.7	-15.4	5.62	3.0
11.5	-18.1	.00	-14.4	-16.2	5.32	2.7
12.0	-18.3	.00	-14.6	-16.9	4.85	2.1
12.5	-18.5	.00	-14.4	-17.6	3.73	0.8
13.0	-18.4	.00	-12.7	-17.8	5.38	2.7
13.5	-18.3	.11	-9.3	-16.9	4.90	2.2
14.0	-17.9	.00	-13.4	-16.6	4.19	1.4
14.5	-17.0	.24	-6.1	-17.0	4.23	1.4
15.0	-17.9	.11	-9.5	-17.0	5.30	2.6
15.5	-18.2	.00	-14.6	-17.0	4.28	1.5
16.0	-18.3	.00	-17.4	-16.7	3.15	0.2
16.5	-18.2	.00	-14.8	-9.9	4.54	1.8
17.0	-18.1	.00	-14.8	-15.9	5.11	2.4
17.5	-18.4	.00	-14.4	-15.6	3.23	0.3
18.0	-18.7	.00	-16.1	-15.8	2.80	-0.2
18.5	-18.5	.00	-18.8	-15.9	2.86	0.0
19.0	-18.1	.00	-14.7	-15.7	2.88	0.0
19.5	-18.3	.00	-15.0	-15.7	2.99	0.0
20.0	-17.2	.17	-7.6	-15.7	3.13	0.2
20.5	-16.0	.62	-2.0	-15.9	2.93	0.0
21.0	-15.7	1.30	1.2	-15.2	2.92	0.0
21.5	-16.6	.56	-2.5	-15.8	2.64	-0.4
22.0	-16.6	.27	-5.5	-15.2	2.91	0.0
22.5	-16.9	.26	-5.7	-14.4	2.81	-0.2
23.0	-17.7	.00	-15.8	-14.2	2.83	-0.2
23.5	-17.7	.09	-10.3	-13.6	3.03	0.0
24.0	-17.8	.12	-9.2	-14.4	3.59	0.7
24.5	-17.5	.07	-11.2	-14.8	4.50	1.7
25.0	-17.8	.00	-15.6	-14.8	4.33	1.5



TSC CH-47C #12: 5 DEG APRCH, 60 KT, 400 FT

TIME	BRITISH			FRENCH		
	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE COEF (DB)	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE CORR (DB)
25.5	-18.8	.00	-18.3	-15.0	3.43	0.5
26.0	-18.1	.00	-14.6	-14.8	3.80	0.9
26.5	-18.1	.00	-18.6	-14.6	3.18	0.2
27.0	-18.0	.00	-14.7	-14.9	3.64	0.7
27.5	-17.6	.00	-16.1	-14.2	3.33	0.4
28.0	-17.4	.00	-13.7	-14.1	3.58	0.7
28.5	-16.8	.12	-9.1	-14.6	4.38	1.6
29.0	-17.0	.11	-9.5	-14.6	3.81	0.9
29.5	-16.4	.07	-11.3	-14.0	4.31	1.5
30.0	-16.6	.09	-10.4	-13.1	3.95	1.1
30.5	-15.4	.15	-8.2	-13.1	4.06	1.2
31.0	-15.0	.42	-3.7	-12.3	4.25	1.4
31.5	-15.9	.34	-4.6	-11.7	3.66	0.8
32.0	-15.4	.24	-6.1	-12.0	3.74	0.9
32.5	-15.8	.26	-5.7	-11.7	3.85	1.0
33.0	-15.8	.17	-7.5	-6.6	4.14	1.3
33.5	-15.5	.20	-6.8	-11.3	3.17	0.2
34.0	-14.1	.29	-5.3	-10.8	3.24	0.3
34.5	-12.2	1.22	0.9	-10.3	3.93	1.1
35.0	-12.0	.64	-1.9	-9.8	4.14	1.3
35.5	-10.9	1.34	1.3	-8.5	3.22	0.3
36.0	-11.2	.83	-0.8	-8.9	3.09	0.1
36.5	-12.6	.94	-0.2	-9.8	3.30	0.3
37.0	-11.8	1.56	1.9	-10.2	4.28	1.5
37.5	-11.2	1.08	0.4	-9.1	5.49	2.9
38.0	-10.7	.71	-1.4	-8.9	4.01	1.2
38.5	-10.7	1.06	0.3	-9.2	3.89	1.0
39.0	-10.5	1.17	0.7	-9.0	3.30	0.4
39.5	-8.1	1.34	1.3	-7.7	3.42	0.5
40.0	-7.2	6.96	8.4	-6.3	3.32	0.4
40.5	-6.2	3.93	6.0	-5.7	3.48	0.6
41.0	-7.7	2.06	3.1	-6.4	3.23	0.3
41.5	-8.6	.84	-0.7	-7.2	3.16	0.2
42.0	-9.2	.53	-2.7	-7.1	2.75	-0.3
42.5	-7.9	.72	-1.4	-6.8	3.13	0.1
43.0	-6.6	1.50	1.8	-5.4	2.80	-0.2
43.5	-6.0	1.38	1.4	-3.5	3.06	0.1
44.0	-4.0	1.24	1.0	-3.1	4.01	1.2
44.5	-3.9	1.09	0.4	-2.8	3.50	0.6
45.0	-4.2	.78	-1.1	-3.2	3.70	0.8
45.5	-4.3	.86	-0.6	-3.8	3.58	0.7
46.0	-4.4	.56	-2.5	-3.5	3.70	0.8
46.5	-4.6	.31	-5.1	-3.6	3.23	0.3
47.0	-3.7	.52	-2.8	-2.6	4.55	1.8
47.5	-2.3	2.46	3.9	-2.2	6.98	4.6
48.0	-0.7	2.14	3.3	-1.3	6.99	4.6
48.5	-0.9	3.17	5.0	-0.6	6.97	4.5
49.0	0.0	2.07	3.2	0.0	6.28	3.8
49.5	-0.7	1.79	2.5	0.0	5.86	3.3
50.0	-2.7	3.12	5.0	-0.2	6.08	3.5

TSC CH-47C #12: 6 DEG APRCH, 60 KT, 400 FT

TIME	BRITISH			FRENCH		
	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE COEF (DB)	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE CORR (DB)
50.5	-4.2	2.47	3.9	-1.3	5.40	2.7
51.0	-4.7	.77	-1.1	-2.5	3.51	0.6
51.5	-5.7	.23	-6.4	-2.7	3.00	0.0
52.0	-6.5	.23	-6.2	-4.1	2.87	0.0
52.5	-7.0	.00	-13.1	-5.4	2.81	-0.2
53.0	-8.9	.08	-10.7	-6.8	2.99	0.0
53.5	-10.1	.09	-10.1	-7.8	3.33	0.4
54.0	-11.8	.19	-7.1	-8.8	3.50	0.6
54.5	-11.8	.11	-9.5	-9.3	3.21	0.2
55.0	-11.8	.10	-9.7	-8.3	3.54	0.6
55.5	-12.0	.14	-8.4	-10.4	2.91	0.0
56.0	-13.6	.07	-11.3	-10.7	2.84	-0.2
56.5	-14.5	.10	-9.9	-12.3	3.08	0.1
57.0	-15.3	.00	-15.9	-12.9	3.02	0.0
57.5	-15.9	.00	-16.2	-13.0	2.97	0.0
58.0	-17.3	.00	-20.2	-15.0	2.61	-0.4
58.5	-12.9	.06	-11.9	-14.8	2.99	0.0
59.0	-11.4	.00	-19.4	-14.0	2.66	-0.4

TSC CH-47C #18: FLYOVER, 60 KT, 500 FT

TIME	BRITISH			FRENCH		
	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE COEF (DB)	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE CORR (DB)
0.5	-14.9	.00	-14.5	-15.2	2.84	-0.2
1.0	-14.1	.22	-6.4	-14.6	2.96	0.0
1.5	-14.5	.09	-10.3	-14.8	3.02	0.0
2.0	-13.8	.17	-7.5	-14.6	2.91	0.0
2.5	-14.4	.00	-14.6	-14.2	2.80	-0.2
3.0	-14.2	.07	-11.0	-13.8	2.71	-0.3
3.5	-13.0	.24	-6.1	-13.2	2.93	0.0
4.0	-11.6	2.27	3.6	-11.0	6.77	4.3
4.5	-11.4	1.81	2.6	-10.7	6.39	3.9
5.0	-10.1	2.59	4.1	-8.7	7.54	5.2
5.5	-9.6	3.42	5.4	-8.0	9.46	7.4
6.0	-7.9	8.04	9.1	-7.5	14.64	13.3
6.5	-7.0	11.87	10.7	-7.7	15.55	14.3
7.0	-6.6	8.53	9.3	-6.8	6.88	4.4
7.5	-5.7	7.47	8.7	-6.7	6.99	4.6
8.0	-5.6	7.35	8.7	-7.0	7.49	5.1
8.5	-6.6	8.62	9.4	-6.0	9.40	7.3
9.0	-7.3	3.41	5.3	-5.0	9.20	7.1
9.5	-8.5	2.84	4.5	-5.6	6.39	3.9
10.0	-8.9	2.19	3.4	-5.3	6.33	3.8
10.5	-11.0	1.00	0.0	-6.1	5.14	2.5
11.0	-11.2	.64	-1.9	-6.9	4.42	1.6
11.5	-11.7	.98	0.0	-7.8	5.46	2.8
12.0	-11.2	.97	0.0	-8.5	6.45	3.9
12.5	-10.3	2.17	3.4	-8.5	7.16	4.8
13.0	-10.5	2.30	3.6	-8.4	6.51	4.0
13.5	-11.4	1.66	2.2	-8.9	6.83	4.4
14.0	-11.2	1.21	0.8	-8.4	5.45	2.8
14.5	-11.9	.72	-1.4	-8.9	4.81	2.1
15.0	-12.5	.54	-2.6	-8.0	3.74	0.8
15.5	-11.6	.72	-1.4	-7.7	4.79	2.1
16.0	-11.2	.46	-3.3	-6.8	5.04	2.3
16.5	-11.4	.61	-2.1	-6.9	5.06	2.4
17.0	-10.8	1.39	1.4	-7.2	5.41	2.8
17.5	-7.3	5.88	7.7	-5.8	6.49	4.0
18.0	-8.1	4.91	6.9	-5.7	6.61	4.1
18.5	-6.4	9.51	9.8	-5.4	7.67	5.3
19.0	-7.6	5.71	7.6	-6.7	7.14	4.7
19.5	-11.2	.87	-0.6	-8.0	4.12	1.3
20.0	-11.8	.77	-1.1	-8.1	3.85	1.0
20.5	-10.9	1.77	2.5	-7.3	3.91	1.1
21.0	-5.7	19.29	12.9	-5.4	9.65	7.6
21.5	-3.8	13.66	11.4	-4.1	11.67	9.9
22.0	-7.7	5.30	7.2	-4.7	7.56	5.2
22.5	-7.3	10.13	10.1	-5.9	8.29	6.1
23.0	-11.8	1.44	1.6	-9.0	4.43	1.6
23.5	-11.1	1.20	0.8	-8.5	3.55	0.6
24.0	-9.4	2.78	4.5	-6.8	7.00	4.6
24.5	-8.5	6.53	8.2	-5.6	7.64	5.3
25.0	-7.7	5.83	7.7	-4.5	7.12	4.7

TSC CH-47C #18: FLYOVER, 60 KT, 500 FT

TIME	BRITISH			FRENCH		
	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE COEF (DB)	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE CORR (DB)
25.5	-8.3	2.24	3.5	-5.5	6.58	4.1
26.0	-10.1	1.34	1.3	-7.9	5.98	3.4
26.5	-10.9	.59	-2.2	-7.9	4.08	1.2
27.0	-6.4	4.77	6.8	-5.0	6.04	3.5
27.5	-6.0	7.90	9.0	-4.3	6.36	3.8
28.0	-6.0	4.17	6.2	-3.3	5.08	2.4
28.5	-5.5	4.08	6.1	-3.0	5.94	3.4
29.0	-5.5	5.98	7.8	-3.4	6.21	3.7
29.5	-7.0	4.57	6.6	-3.6	5.52	2.9
30.0	-7.2	2.77	4.4	-4.6	5.21	2.5
30.5	-6.2	3.94	6.0	-3.8	5.18	2.5
31.0	-5.7	3.92	5.9	-3.4	4.78	2.0
31.5	-4.7	4.88	6.9	-3.8	5.33	2.7
32.0	-7.1	3.45	5.4	-5.0	3.76	0.9
32.5	-7.7	2.19	3.4	-4.8	3.30	0.3
33.0	-9.1	1.32	1.2	-6.0	3.40	0.5
33.5	-4.6	5.41	7.3	-2.6	3.83	1.0
34.0	-3.4	6.16	7.9	-2.6	4.44	1.6
34.5	-6.7	4.38	6.4	-3.5	3.06	0.1
35.0	-6.5	2.37	3.8	-3.2	3.16	0.2
35.5	-5.4	2.41	3.8	-2.9	3.03	0.0
36.0	-2.3	4.27	6.3	-1.4	3.93	1.1
36.5	-2.8	2.06	3.1	-1.3	5.39	2.7
37.0	-1.6	1.27	1.1	0.0	6.84	4.4
37.5	0.0	2.08	3.2	-0.2	7.06	4.6
38.0	-1.7	2.43	3.9	-0.2	6.07	3.5
38.5	-2.0	1.02	0.1	-0.8	5.99	3.4
39.0	-2.3	2.12	3.3	-1.6	5.08	2.4
39.5	-2.1	2.76	4.4	-3.3	4.76	2.0
40.0	-3.7	2.61	4.2	-3.2	4.38	1.6
40.5	-4.2	1.72	2.4	-3.1	3.95	1.1
41.0	-2.1	1.26	1.0	-1.8	3.89	1.0
41.5	-1.5	.71	-1.4	-0.5	4.23	1.4
42.0	-3.0	.48	-3.1	-0.5	6.01	3.4
42.5	-3.4	.31	-5.0	-1.0	5.01	2.3
43.0	-4.6	.30	-5.2	-2.1	3.35	0.4
43.5	-5.3	.09	-10.4	-2.2	3.17	0.2
44.0	-5.1	.00	-16.8	-2.2	3.03	0.0
44.5	-5.2	.00	-17.9	-2.6	3.10	0.1
45.0	-4.7	.00	-14.3	-2.5	3.16	0.2
45.5	-5.3	.09	-10.3	-3.1	3.42	0.5
46.0	-6.0	.00	-17.1	-4.1	2.67	-0.4
46.5	-7.2	.00	-15.9	-5.6	2.58	-0.5
47.0	-7.3	.00	-18.9	-6.7	2.45	-0.6
47.5	-7.6	.00	-16.4	-7.7	2.54	-0.5
48.0	-8.4	.00	-16.6	-8.0	2.55	-0.5
48.5	-9.0	.00	-18.1	-8.4	2.47	-0.6
49.0	-9.5	.00	-16.5	-9.3	2.52	-0.5
49.5	-9.8	.00	-17.3	-9.6	2.59	-0.5

TSC CH-47C #20: 9 DEG APRCH, 60 KT, 400 FT

TIME	BRITISH			FRENCH		
	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE COEF (DB)	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE CORR (DB)
0.5	-15.4	.12	-9.2	-15.2	2.68	-0.4
1.0	-14.5	.24	-6.1	-14.7	3.47	0.5
1.5	-15.8	.11	-9.3	-15.9	3.08	0.1
2.0	-16.7	.00	-15.1	-15.7	3.07	0.1
2.5	-16.7	.00	-12.6	-14.6	2.89	0.0
3.0	-17.3	.00	-20.4	-16.1	2.79	-0.2
3.5	-16.7	.00	-18.4	-15.5	2.54	-0.5
4.0	-16.8	.00	-13.3	-15.2	2.64	-0.4
4.5	-16.8	.00	-19.6	-15.1	3.30	0.3
5.0	-15.4	.00	-17.0	-15.0	2.63	-0.4
5.5	-15.2	.00	-17.3	-15.0	2.86	-0.2
6.0	-15.4	.00	-15.8	-15.3	2.80	-0.2
6.5	-16.4	.00	-15.2	-15.3	2.57	-0.5
7.0	-15.9	.09	-10.2	-15.7	2.68	-0.4
7.5	-15.6	.14	-8.4	-14.9	2.71	-0.3
8.0	-15.1	.30	-5.1	-14.6	2.92	0.0
8.5	-14.4	.22	-6.6	-13.8	2.70	-0.3
9.0	-14.4	.12	-9.0	-13.3	2.85	-0.2
9.5	-15.0	.11	-9.5	-13.0	2.56	-0.5
10.0	-14.3	.20	-6.9	-13.1	2.40	-0.7
10.5	-14.3	.23	-6.3	-12.6	2.52	-0.5
11.0	-13.9	.26	-5.7	-12.3	2.71	-0.3
11.5	-13.1	.52	-2.8	-12.2	3.15	0.2
12.0	-12.8	.62	-2.0	-11.4	2.55	-0.5
12.5	-11.4	1.34	1.3	-10.9	2.86	-0.2
13.0	-11.7	.64	-1.9	-10.2	2.78	-0.2
13.5	-10.9	1.01	0.1	-10.1	3.23	0.3
14.0	-10.9	.89	-0.5	-11.0	3.58	0.7
14.5	-9.0	1.75	2.4	-10.5	3.79	0.9
15.0	-8.3	.85	-0.7	-9.8	3.97	1.1
15.5	-10.1	.72	-1.4	-10.1	3.67	0.8
16.0	-11.1	.62	-2.1	-10.6	3.37	0.4
16.5	-8.3	.98	0.0	-8.6	3.80	0.9
17.0	-7.7	.81	-0.9	-7.9	3.77	0.9
17.5	-8.4	1.49	1.7	-8.3	3.83	1.0
18.0	-9.1	.72	-1.4	-8.5	3.38	0.4
18.5	-9.0	1.21	0.8	-8.2	3.65	0.7
19.0	-8.6	.91	-0.4	-7.5	3.46	0.5
19.5	-7.8	.82	-0.8	-7.2	3.73	0.8
20.0	-8.0	.63	-2.0	-6.5	3.41	0.5
20.5	-6.9	1.10	0.4	-6.2	4.21	1.4
21.0	-6.2	.91	-0.4	-5.9	4.78	2.0
21.5	-6.6	.95	-0.2	-5.3	4.50	1.7
22.0	-5.8	.97	0.0	-4.7	4.48	1.7
22.5	-5.5	.85	-0.7	-4.9	5.00	2.3
23.0	-4.9	.88	-0.6	-4.2	4.91	2.2
23.5	-4.5	.95	-0.2	-4.2	5.72	3.1
24.0	-3.4	1.41	1.5	-3.5	5.60	3.0
24.5	-3.4	1.52	1.8	-2.9	5.94	3.4
25.0	-1.6	1.25	1.0	-2.2	6.87	4.4



TSC CH-47C #20: 9 DEG APRCH, 60 KT, 400 FT

TIME	BRITISH			FRENCH		
	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE COEF (DB)	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE CORR (DB)
25.5	-1.2	2.10	3.2	-1.9	7.58	5.2
26.0	-0.7	1.62	2.1	-2.0	7.52	5.2
26.5	-0.3	1.97	3.0	-0.9	6.92	4.5
27.0	0.0	1.93	2.9	-0.8	7.35	5.0
27.5	0.0	4.25	6.3	-0.2	5.91	3.3
28.0	-1.0	5.39	7.3	0.0	5.65	3.0
28.5	-3.0	.82	-0.9	-1.0	5.10	2.4
29.0	-3.8	.56	-2.5	-1.5	4.12	1.3
29.5	-4.1	.15	-8.2	-1.9	3.47	0.5
30.0	-4.7	.13	-8.6	-3.3	2.89	0.0
30.5	-5.0	.15	-8.2	-3.2	2.47	-0.6
31.0	-6.2	.10	-9.7	-4.5	2.31	-0.8
31.5	-7.0	.08	-10.7	-5.9	2.84	-0.2
32.0	-8.5	.00	-15.7	-7.6	2.65	-0.4
32.5	-9.2	.00	-14.6	-9.4	3.03	0.0
33.0	-9.9	.00	-13.9	-10.4	3.35	0.4
33.5	-10.6	.00	-14.7	-10.7	3.31	0.4
34.0	-10.8	.00	-13.8	-11.2	3.27	0.3
34.5	-11.1	.00	-14.3	-11.6	3.04	0.1
35.0	-11.8	.00	-16.3	-12.4	2.77	-0.3
35.5	-13.1	.00	-17.5	-13.1	2.99	0.0
36.0	-14.1	.00	-19.2	-14.0	2.91	0.0
36.5	-14.7	.00	-21.4	-14.6	2.71	-0.3
37.0	-15.0	.00	-15.4	-15.6	2.87	0.0
37.5	-15.6	.00	-21.2	-16.2	2.80	-0.2
38.0	-15.9	.00	-16.8	-16.7	2.94	0.0
38.5	-16.5	.00	-20.6	-16.9	2.60	-0.5



TSC CH-47C #23: FLYOVER, 100 KT, 500 FT

TIME	BRITISH			FRENCH		
	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE COEF (DB)	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE CORR (DB)
0.5	-9.0	.00	-20.5	-13.4	2.56	-0.5
1.0	-8.8	.00	-18.6	-12.9	2.80	-0.2
1.5	-9.8	.00	-22.7	-13.5	2.82	-0.2
2.0	-9.2	.00	-19.7	-13.1	2.57	-0.5
2.5	-9.5	.00	-18.4	-12.9	2.69	-0.3
3.0	-9.1	.00	-22.0	-12.5	2.85	-0.2
3.5	-9.2	.00	-16.5	-13.1	3.21	0.2
4.0	-9.3	.00	-23.0	-13.3	3.08	0.1
4.5	-9.2	.00	-21.6	-12.0	2.97	0.0
5.0	-9.7	.00	-23.9	-10.1	2.83	-0.2
5.5	-9.6	.00	-19.3	-13.2	2.93	0.0
6.0	-9.6	.00	-18.9	-13.3	2.72	-0.3
6.5	-9.3	.00	-20.6	-12.8	2.73	-0.3
7.0	-9.6	.00	-21.3	-13.3	2.61	-0.4
7.5	-9.3	.00	-16.8	-9.9	6.23	3.7
8.0	-9.3	.00	-20.1	-7.5	4.77	2.0
8.5	-9.1	.00	-17.0	-12.4	2.65	-0.4
9.0	-8.9	.00	-19.0	-12.2	2.77	-0.3
9.5	-9.4	.00	-18.9	-12.0	2.67	-0.4
10.0	-9.4	.00	-20.3	-11.4	3.11	0.1
10.5	-8.9	.00	-21.6	-11.0	2.93	0.0
11.0	-9.1	.00	-15.3	-10.6	2.80	-0.2
11.5	-8.8	.00	-19.4	-9.3	2.53	-0.5
12.0	-8.4	.00	-14.4	-9.4	3.23	0.3
12.5	-8.6	.00	-19.4	-8.9	2.51	-0.6
13.0	-7.8	.00	-14.7	-8.2	2.78	-0.2
13.5	-8.7	.00	-18.8	-8.1	2.27	-0.8
14.0	-8.2	.00	-13.6	-6.9	2.54	-0.5
14.5	-8.3	.00	-14.6	-7.1	2.53	-0.5
15.0	-7.6	.00	-13.5	-6.4	2.41	-0.7
15.5	-7.6	.00	-13.1	-5.3	2.53	-0.5
16.0	-6.8	.00	-13.7	-4.3	3.09	0.1
16.5	-6.5	.09	-10.3	-3.6	2.83	-0.2
17.0	-6.3	.10	-9.6	-3.9	3.16	0.2
17.5	-6.9	.11	-9.4	-3.8	2.82	-0.2
18.0	-6.6	.00	-12.8	-4.0	2.83	-0.2
18.5	-6.5	.08	-10.9	-3.9	2.96	0.0
19.0	-6.0	.19	-7.1	0.0	3.74	0.9
19.5	-5.6	.00	-17.1	-4.3	2.57	-0.5
20.0	-5.4	.00	-17.5	-4.4	2.89	0.0
20.5	-6.3	.00	-14.9	-4.6	2.69	-0.3
21.0	-6.5	.06	-11.6	-4.3	2.80	-0.2
21.5	-6.4	.15	-8.0	-3.7	2.97	0.0
22.0	-5.9	.17	-7.5	-2.8	2.61	-0.4
22.5	-4.9	.56	-2.5	-2.6	3.04	0.0
23.0	-5.4	.07	-11.3	-3.4	2.70	-0.3
23.5	-6.0	.22	-6.4	-3.3	2.93	0.0
24.0	-6.7	.10	-9.7	-3.3	2.41	-0.7
24.5	-6.8	.12	-9.0	-3.0	2.56	-0.5
25.0	-5.5	.07	-11.3	-2.0	2.43	-0.6

TSC CH-47C #23: FLYOVER, 100 KT, 500 FT

TIME	BRITISH			FRENCH		
	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE COEF (DB)	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE CORR (DB)
25.5	-5.7	.20	-6.8	-1.3	2.52	-0.5
26.0	-5.5	.07	-11.1	-1.4	2.51	-0.6
26.5	-5.2	.15	-8.1	-0.3	2.26	-0.8
27.0	-4.5	.12	-9.2	-0.3	2.17	-0.9
27.5	-4.0	.22	-6.4	-1.0	2.05	-1.1
28.0	-3.3	.12	-9.0	-0.8	2.01	-1.1
28.5	-3.2	.14	-8.5	-1.1	1.95	-1.2
29.0	-3.5	.00	-18.8	-1.7	2.02	-1.1
29.5	-2.8	.00	-15.0	-1.4	2.14	-1.0
30.0	-4.7	.10	-9.8	-2.0	2.19	-0.9
30.5	-4.9	.13	-8.6	-2.8	2.40	-0.7
31.0	-3.1	.28	-5.5	-2.0	3.46	0.5
31.5	-3.6	.25	-5.9	-0.3	3.61	0.7
32.0	-3.3	.24	-6.1	-3.2	3.88	1.0
32.5	-3.1	.08	-10.7	-3.4	2.92	0.0
33.0	-2.7	.12	-9.2	-3.7	3.37	0.4
33.5	-2.8	.00	-15.2	-3.1	4.71	2.0
34.0	-1.9	.11	-9.4	-2.2	5.49	2.8
34.5	-1.3	.54	-2.6	-1.2	7.66	5.3
35.0	-1.6	.22	-6.6	-1.9	5.66	3.0
35.5	-1.1	.32	-4.8	-1.3	5.03	2.3
36.0	0.0	.16	-7.7	-0.7	3.81	0.9
36.5	0.0	.06	-11.9	-1.4	3.09	0.1
37.0	-0.7	.00	-14.2	-2.7	2.59	-0.5
37.5	-2.3	.00	-14.4	-5.2	2.84	-0.2
38.0	-2.7	.00	-21.0	-6.8	2.99	0.0
38.5	-2.5	.00	-16.4	-6.5	3.02	0.0
39.0	-2.8	.00	-14.0	-6.1	3.39	0.4
39.5	-3.8	.00	-16.5	-7.2	2.87	0.0
40.0	-4.7	.00	-17.6	-8.4	3.08	0.1
40.5	-5.4	.00	-20.7	-9.1	2.88	0.0
41.0	-6.3	.00	-16.2	-9.6	2.88	0.0
41.5	-7.1	.00	-20.2	-10.5	2.50	-0.6
42.0	-7.2	.00	-22.3	-11.5	2.95	0.0
42.5	-7.4	.00	-15.0	-12.3	2.89	0.0
43.0	-5.7	.00	-13.0	-11.5	2.94	0.0
43.5	-4.4	.40	-4.0	-10.8	3.06	0.1
44.0	-6.9	.00	-16.1	-12.5	2.68	-0.4
44.5	-6.4	.00	-12.9	-12.4	2.96	0.0
45.0	-6.3	.10	-9.6	-12.5	3.31	0.4
45.5	-8.7	.00	-17.8	-3.4	4.29	1.5
46.0	-9.6	.00	-17.4	-13.1	3.14	0.2
46.5	-9.6	.00	-21.1	-14.4	2.97	0.0

TSC CH-47C #24: FLYOVER, 141 KT, 500 FT

TIME	BRITISH			FRENCH		
	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE COEF (DB)	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE CORR (DB)
0.5	-13.7	.00	-16.4	-20.3	2.93	0.0
1.0	-13.2	.06	-11.8	-19.8	2.90	0.0
1.5	-13.3	.00	-12.2	-19.7	3.12	0.1
2.0	-14.3	.00	-17.8	-20.1	2.68	-0.4
2.5	-16.1	.00	-18.7	-20.7	2.62	-0.4
3.0	-12.6	.23	-6.4	-19.2	2.89	0.0
3.5	-15.1	.00	-18.8	-20.1	2.67	-0.4
4.0	-15.0	.00	-16.4	-20.2	2.64	-0.4
4.5	-15.5	.00	-15.9	-20.5	2.94	0.0
5.0	-15.4	.00	-18.5	-19.8	2.92	0.0
5.5	-15.7	.00	-18.3	-20.0	2.94	0.0
6.0	-15.5	.00	-22.1	-20.1	2.84	-0.2
6.5	-15.6	.00	-21.5	-19.7	2.95	0.0
7.0	-15.5	.00	-16.1	-20.2	2.70	-0.3
7.5	-15.6	.00	-18.0	-19.9	2.56	-0.5
8.0	-14.9	.00	-16.5	-18.6	2.76	-0.3
8.5	-14.9	.00	-20.4	-18.9	2.78	-0.2
9.0	-14.6	.00	-22.6	-18.5	2.85	-0.2
9.5	-14.3	.00	-15.8	-17.2	2.81	-0.2
10.0	-14.2	.00	-18.0	-17.0	2.73	-0.3
10.5	-14.5	.00	-14.7	-16.4	3.30	0.3
11.0	-14.1	.00	-12.3	-14.9	3.06	0.1
11.5	-13.4	.00	-15.4	-14.0	3.08	0.1
12.0	-12.2	.10	-9.8	-12.7	3.02	0.0
12.5	-10.8	.40	-3.9	-10.6	2.92	0.0
13.0	-8.0	1.73	2.4	-8.4	3.48	0.6
13.5	-5.1	2.41	3.8	-6.1	4.06	1.2
14.0	-4.1	2.71	4.3	-4.4	4.37	1.6
14.5	-3.2	1.96	2.9	-3.4	4.06	1.2
15.0	-2.0	2.73	4.4	-2.2	4.72	2.0
15.5	-1.3	3.77	5.8	-1.4	5.16	2.5
16.0	-0.5	3.50	5.4	-1.3	5.96	3.4
16.5	0.0	3.38	5.3	-0.7	5.79	3.2
17.0	-0.8	3.93	5.9	-1.1	5.75	3.1
17.5	-1.6	2.99	4.8	-1.6	5.49	2.9
18.0	-3.7	3.37	5.3	-3.0	5.04	2.3
18.5	-4.7	2.67	4.3	-4.2	5.56	2.9
19.0	-5.5	2.13	3.3	-4.3	4.42	1.6
19.5	-6.7	1.31	1.2	-5.6	4.47	1.7
20.0	-7.6	.77	-1.1	-6.0	3.40	0.5
20.5	-7.1	1.44	1.6	-5.4	3.76	0.9
21.0	-5.6	1.91	2.8	-4.4	3.94	1.1
21.5	-4.4	1.71	2.4	-2.8	4.00	1.2
22.0	-4.2	1.78	2.5	-2.1	3.95	1.1
22.5	-4.2	1.87	2.7	-2.1	3.75	0.9
23.0	-4.3	1.87	2.7	-1.1	3.35	0.4
23.5	-3.6	2.01	3.1	-0.2	3.23	0.3
24.0	-3.9	.80	-0.9	0.0	3.00	0.0
24.5	-4.5	.31	-5.0	-1.0	2.51	-0.6
25.0	-6.1	.17	-7.6	-2.5	2.14	-1.0

TSC CH-47C #24: FLYOVER, 141 KT, 500 FT

TIME	BRITISH			FRENCH		
	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE COEF (DB)	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE CORR (DB)
25.5	-6.8	.22	-6.5	-2.9	1.90	-1.2
26.0	-7.3	.80	-0.9	-2.4	1.90	-1.2
26.5	-7.5	.32	-4.9	-3.2	2.37	-0.7
27.0	-5.9	.75	-1.2	-3.5	3.01	0.0
27.5	-4.3	.82	-0.8	-3.6	3.78	0.9
28.0	-3.0	1.62	2.1	-5.2	5.67	3.1
28.5	-4.4	1.10	0.4	-5.6	6.73	4.3
29.0	-4.2	.97	0.0	-4.0	6.90	4.5
29.5	-3.5	1.35	1.3	-4.4	7.96	5.7
30.0	-4.9	.53	-2.7	-6.4	5.52	2.9
30.5	-5.6	.00	-14.5	-7.5	4.07	1.2
31.0	-5.0	.06	-11.6	-7.4	3.38	0.4
31.5	-5.7	.06	-11.9	-9.9	2.88	0.0
32.0	-7.7	.00	-12.1	-11.8	2.56	-0.5
32.5	-9.1	.00	-13.6	-13.4	2.53	-0.5
33.0	-8.5	.00	-12.9	-14.0	2.77	-0.3
33.5	-8.7	.07	-11.0	-14.8	2.92	0.0
34.0	-10.6	.00	-15.2	-16.2	2.79	-0.2
34.5	-10.4	.00	-15.3	-16.8	3.12	0.1
35.0	-11.8	.00	-14.1	-18.1	2.99	0.0
35.5	-12.5	.00	-20.8	-18.8	3.02	0.0

TSC CH-47C #27: FLYOVER, 141 KT, 500 FT

TIME	BRITISH			FRENCH		
	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE COEF (DB)	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE CORR (DB)
0.5	-19.1	.00	-22.0	-23.0	2.63	-0.4
1.0	-18.9	.00	-19.9	-22.0	2.44	-0.6
1.5	-19.1	.00	-19.2	-22.3	2.71	-0.3
2.0	-19.0	.00	-21.9	-22.6	2.90	0.0
2.5	-18.8	.00	-21.4	-22.5	2.84	-0.2
3.0	-19.0	.00	-21.0	-22.5	3.03	0.0
3.5	-18.4	.00	-16.5	-21.8	2.55	-0.5
4.0	-18.6	.00	-20.1	-21.6	2.93	0.0
4.5	-18.4	.00	-19.4	-21.7	3.07	0.1
5.0	-17.9	.00	-16.2	-21.3	2.89	0.0
5.5	-17.3	.00	-21.2	-20.4	2.83	-0.2
6.0	-16.2	.00	-14.5	-19.2	3.00	0.0
6.5	-14.9	.20	-6.8	-16.5	3.10	0.1
7.0	-14.4	.20	-6.9	-14.2	3.02	0.0
7.5	-15.3	.10	-9.9	-14.4	2.68	-0.4
8.0	-14.7	.17	-7.5	-13.8	2.21	-0.9
8.5	-14.9	.09	-10.2	-12.4	2.43	-0.6
9.0	-13.5	1.63	2.1	-11.2	2.53	-0.5
9.5	-10.7	3.52	5.5	-8.6	3.67	0.8
10.0	-3.9	18.97	12.8	-3.7	9.07	6.9
10.5	0.0	5.24	7.2	-0.8	8.39	6.2
11.0	0.0	6.54	8.2	-0.6	9.15	7.0
11.5	-2.4	2.03	3.1	-1.3	6.76	4.3
12.0	-2.9	6.14	7.9	-2.0	6.56	4.1
12.5	-4.7	2.71	4.3	-2.3	5.32	2.7
13.0	-1.9	4.26	6.3	-0.3	5.55	2.9
13.5	-2.3	6.88	8.4	0.0	4.58	1.8
14.0	-2.8	3.89	5.9	0.0	4.09	1.3
14.5	-2.5	5.89	7.7	0.0	3.99	1.1
15.0	-3.1	5.71	7.6	-0.8	3.28	0.3
15.5	-6.7	.84	-0.8	-1.7	2.58	-0.5
16.0	-6.7	.70	-1.5	-2.0	2.50	-0.6
16.5	-6.1	.92	-0.3	-3.2	2.32	-0.8
17.0	-7.4	.77	-1.1	-3.6	2.08	-1.0
17.5	-8.2	.76	-1.2	-4.8	1.89	-1.3
18.0	-7.0	1.06	0.3	-4.5	2.43	-0.6
18.5	-7.7	.35	-4.5	-4.3	2.83	-0.2
19.0	-7.9	.49	-3.1	-5.4	3.81	0.9
19.5	-7.8	.77	-1.1	-7.9	5.09	2.4
20.0	-6.2	3.54	5.5	-5.6	9.62	7.6
20.5	-6.7	1.00	0.0	-5.3	8.32	6.1
21.0	-8.1	.59	-2.3	-6.9	6.93	4.5
21.5	-9.1	.19	-7.1	-8.1	4.71	2.0
22.0	-8.4	.30	-5.2	-7.3	4.60	1.8
22.5	-10.3	.07	-11.3	-10.1	3.25	0.3
23.0	-11.6	.00	-14.3	-12.2	2.46	-0.6
23.5	-13.2	.00	-19.5	-14.0	2.39	-0.7
24.0	-13.7	.00	-17.2	-16.1	2.81	-0.2
24.5	-14.4	.00	-19.5	-17.7	2.65	-0.4
25.0	-15.1	.00	-17.9	-18.8	2.59	-0.5

TSC CH-47C #27: FLYOVER, 141 KT, 500 FT

TIME	BRITISH			FRENCH		
	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE COEF (DB)	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE CORR (DB)
25.5	-16.6	.00	-16.2	-19.8	2.56	-0.5
26.0	-15.8	.00	-18.4	-19.3	3.43	0.5



TSC CH-47C #28: FLYOVER, 150 KT, 500 FT

TIME	BRITISH			FRENCH		
	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE COEF (DB)	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE CORR (DB)
0.5	-19.4	.00	-16.6	-23.0	3.14	0.2
1.0	-19.4	.00	-24.6	-22.6	2.89	0.0
1.5	-19.3	.00	-20.5	-22.2	3.00	0.0
2.0	-19.3	.00	-16.5	-22.5	3.19	0.2
2.5	-19.8	.00	-21.7	-22.2	2.80	-0.2
3.0	-18.7	.00	-19.3	-19.7	2.62	-0.4
3.5	-18.0	.00	-16.1	-17.9	2.93	0.0
4.0	-16.9	.00	-12.4	-15.6	3.42	0.5
4.5	-15.5	.41	-3.9	-12.6	3.21	0.2
5.0	-12.9	.70	-1.5	-10.5	3.28	0.3
5.5	-10.5	2.77	4.4	-8.0	3.34	0.4
6.0	-7.7	9.00	9.5	-5.8	4.20	1.4
6.5	-6.1	6.81	8.3	-3.8	4.29	1.5
7.0	-3.8	6.46	8.1	-2.0	4.89	2.2
7.5	-0.7	8.69	9.4	-0.6	8.32	6.1
8.0	0.0	7.88	9.0	0.0	8.62	6.4
8.5	-0.8	2.54	4.1	-1.0	5.79	3.2
9.0	-2.6	3.38	5.3	-1.7	4.68	1.9
9.5	-4.9	2.56	4.1	-3.5	4.36	1.6
10.0	-5.3	4.33	6.4	-3.6	4.07	1.2
10.5	-6.2	3.45	5.4	-3.5	3.46	0.5
11.0	-4.8	2.28	3.6	-2.8	3.44	0.5
11.5	-4.5	2.95	4.7	-2.4	3.12	0.1
12.0	-4.9	1.44	1.6	-2.1	2.96	0.0
12.5	-4.6	1.50	1.8	-2.0	2.71	-0.3
13.0	-6.2	.88	-0.5	-2.3	2.33	-0.8
13.5	-7.2	1.33	1.3	-3.5	2.09	-1.0
14.0	-8.5	1.97	3.0	-4.7	1.90	-1.3
14.5	-7.3	1.74	2.4	-5.4	2.17	-0.9
15.0	-5.9	1.16	0.7	-4.7	3.56	0.6
15.5	-6.8	.52	-2.8	-6.0	4.18	1.4
16.0	-6.6	.68	-1.6	-8.0	7.51	5.2
16.5	-8.8	.10	-9.9	-8.2	6.59	4.1
17.0	-8.0	.06	-11.7	-8.5	4.17	1.3
17.5	-7.8	.00	-13.5	-8.5	4.17	1.3
18.0	-8.3	.07	-11.2	-10.0	4.22	1.4
18.5	-10.8	.00	-19.0	-12.6	2.95	0.0
19.0	-11.9	.00	-16.0	-14.5	2.45	-0.6
19.5	-13.4	.00	-18.5	-15.6	2.40	-0.7
20.0	-14.8	.00	-17.0	-17.4	2.45	-0.6
20.5	-16.0	.00	-17.5	-19.3	2.46	-0.6
21.0	-15.9	.00	-16.3	-19.2	2.46	-0.6
21.5	-14.1	1.19	0.8	-19.1	3.95	1.1
22.0	-16.4	.07	-11.1	-20.8	2.91	0.0
22.5	-18.1	.00	-22.2	-21.9	3.15	0.2
23.0	-15.6	1.63	2.1	-21.6	3.24	0.3
23.5	-16.4	.25	-6.0	-22.8	3.11	0.1
24.0	-18.7	.00	-19.1	-23.8	2.74	-0.3

TSC CH-47C #29: FLYOVER , 150 KT, 500 FT

TIME	BRITISH			FRENCH		
	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE COEF (DB)	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE CORR (DB)
0.5	-21.6	.00	-22.0	-25.3	3.07	0.1
1.0	-21.7	.00	-22.0	-25.5	2.70	-0.3
1.5	-21.3	.00	-19.0	-24.6	3.08	0.1
2.0	-21.3	.00	-18.8	-24.1	2.84	-0.2
2.5	-21.2	.00	-18.4	-24.1	2.91	0.0
3.0	-20.7	.00	-18.8	-23.9	2.64	-0.4
3.5	-20.9	.00	-20.4	-24.5	3.01	0.0
4.0	-20.5	.00	-15.0	-24.6	2.93	0.0
4.5	-20.6	.00	-17.6	-24.2	3.27	0.3
5.0	-20.4	.00	-19.6	-23.7	2.94	0.0
5.5	-20.2	.00	-19.9	-23.6	2.67	-0.4
6.0	-20.4	.00	-19.8	-24.1	3.11	0.1
6.5	-20.1	.00	-21.8	-23.0	2.77	-0.3
7.0	-19.6	.00	-13.3	-21.8	3.08	0.1
7.5	-18.5	.00	-12.5	-19.8	3.17	0.2
8.0	-16.4	.22	-6.5	-17.5	3.03	0.0
8.5	-15.6	.69	-1.6	-16.3	2.69	-0.3
9.0	-14.5	.62	-2.1	-14.0	2.49	-0.6
9.5	-12.9	.81	-0.9	-11.8	2.47	-0.6
10.0	-10.5	.89	-0.5	-9.5	2.46	-0.6
10.5	-9.6	1.65	2.2	-6.9	3.36	0.4
11.0	-7.4	1.55	1.9	-4.4	4.09	1.3
11.5	-7.1	1.31	1.2	-3.0	3.61	0.7
12.0	-3.7	3.14	5.0	-2.3	5.22	2.5
12.5	-1.1	4.98	7.0	-1.1	7.85	5.5
13.0	-1.1	5.17	7.1	-1.0	7.74	5.4
13.5	-0.5	3.78	5.8	-0.5	7.75	5.4
14.0	0.0	2.63	4.2	0.0	7.11	4.7
14.5	-1.4	2.90	4.6	-0.3	5.64	3.0
15.0	-2.0	2.55	4.1	-0.8	4.83	2.1
15.5	-1.6	6.84	8.4	-1.0	4.21	1.4
16.0	-3.2	1.69	2.3	-1.1	3.38	0.4
16.5	-3.9	2.86	4.6	-1.7	2.94	0.0
17.0	-5.3	3.12	4.9	-2.5	2.64	-0.4
17.5	-7.5	.99	0.0	-3.5	2.20	-0.9
18.0	-8.4	1.19	0.8	-4.5	2.26	-0.8
18.5	-10.5	.52	-2.8	-5.4	2.06	-1.1
19.0	-10.5	.43	-3.6	-5.4	2.07	-1.1
19.5	-8.3	.66	-1.8	-4.5	3.21	0.2
20.0	-7.3	.64	-1.9	-6.3	4.02	1.2
20.5	-8.0	.83	-0.8	-9.0	6.76	4.3
21.0	-8.0	.34	-4.6	-7.0	7.26	4.9
21.5	-8.2	.08	-10.5	-8.1	5.40	2.7
22.0	-9.4	.21	-6.6	-8.9	4.69	1.9
22.5	-9.5	.11	-9.4	-9.9	4.43	1.6
23.0	-9.6	1.12	0.5	-10.3	4.25	1.4
23.5	-13.3	.00	-16.8	-15.0	2.62	-0.4
24.0	-14.6	.00	-13.1	-16.6	2.44	-0.6
24.5	-15.6	.00	-16.6	-18.7	2.47	-0.6
25.0	-17.4	.00	-19.8	-20.6	2.53	-0.5

TSC CH-47C #29: FLYOVER , 150 KT, 500 FT

TIME	BRITISH			FRENCH		
	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE COEF (DB)	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE CORR (DB)
25.5	-18.1	.00	-20.5	-21.4	2.62	-0.4
26.0	-18.4	.07	-11.3	-21.5	2.68	-0.4
26.5	-17.6	1.05	0.2	-21.6	3.56	0.7
27.0	-16.9	4.53	6.6	-19.3	4.24	1.4
27.5	-18.4	.59	-2.2	-22.2	3.90	1.0
28.0	-18.8	.62	-2.0	-22.9	3.11	0.1
28.5	-20.5	.00	-17.8	-23.4	2.71	-0.3
29.0	-18.8	.38	-4.2	-23.2	2.81	-0.2

TSC CH-47C #35: 3 DEG APRCH, 60 KT, 400 FT

TIME	BRITISH			FRENCH		
	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE COEF (DB)	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE CORR (DB)
0.5	-11.3	.63	-1.9	-10.4	6.51	4.0
1.0	-11.5	.65	-1.8	-10.1	6.07	3.5
1.5	-12.2	.54	-2.6	-10.4	6.00	3.4
2.0	-12.1	.69	-1.6	-10.4	6.30	3.8
2.5	-12.7	.60	-2.2	-11.1	6.05	3.5
3.0	-12.7	.54	-2.6	-11.4	4.52	1.7
3.5	-13.2	.14	-8.4	-12.9	3.85	1.0
4.0	-14.1	.18	-7.4	-13.6	3.46	0.5
4.5	-14.5	.11	-9.4	-12.9	3.55	0.6
5.0	-14.8	.09	-10.2	-13.0	4.90	2.2
5.5	-15.0	.00	-12.1	-14.0	4.72	2.0
6.0	-15.8	.00	-16.5	-13.9	4.41	1.6
6.5	-16.2	.00	-14.9	-13.4	3.49	0.6
7.0	-16.1	.00	-16.2	-14.7	3.30	0.3
7.5	-16.1	.00	-16.9	-14.1	3.43	0.5
8.0	-16.1	.00	-13.0	-13.9	2.96	0.0
8.5	-15.7	.00	-15.6	-14.4	3.26	0.3
9.0	-14.8	.00	-14.5	-15.1	3.23	0.3
9.5	-13.1	2.30	3.6	-13.3	2.69	-0.3
10.0	-14.1	.00	-16.2	-12.5	3.27	0.3
10.5	-13.4	.13	-8.9	-13.9	3.69	0.8
11.0	-13.7	.11	-9.5	-14.5	4.28	1.5
11.5	-14.0	.12	-9.0	-14.1	4.36	1.6
12.0	-13.6	.23	-6.2	-14.4	4.13	1.3
12.5	-13.5	.21	-6.6	-14.0	5.17	2.5
13.0	-13.0	.62	-2.0	-13.0	6.02	3.5
13.5	-13.0	.72	-1.4	-13.2	5.36	2.7
14.0	-11.9	1.76	2.5	-12.2	6.07	3.5
14.5	-12.8	.39	-4.0	-12.3	4.58	1.8
15.0	-11.4	.19	-7.1	-11.1	3.58	0.7
15.5	-11.9	.06	-11.7	-12.4	2.99	0.0
16.0	-12.3	.00	-13.0	-13.0	3.13	0.2
16.5	-11.3	.11	-9.4	-11.5	3.99	1.1
17.0	-10.8	.15	-8.2	-11.4	4.07	1.2
17.5	-10.3	.23	-6.3	-8.8	3.78	0.9
18.0	-11.2	.11	-9.4	-11.3	4.44	1.7
18.5	-11.2	.18	-7.4	-11.2	3.58	0.7
19.0	-11.0	.38	-4.2	-10.2	4.50	1.7
19.5	-10.4	.67	-1.7	-10.0	5.38	2.7
20.0	-9.7	.55	-2.5	-10.3	5.74	3.1
20.5	-8.2	2.69	4.3	-9.7	4.64	1.9
21.0	-7.2	4.04	6.1	-9.0	4.18	1.4
21.5	-10.3	.32	-4.9	-11.2	3.13	0.2
22.0	-9.4	.26	-5.8	-10.7	3.24	0.3
22.5	-8.8	.77	-1.1	-10.3	3.17	0.2
23.0	-8.0	.61	-2.1	-10.1	3.34	0.4
23.5	-5.8	1.42	1.5	-7.7	4.57	1.8
24.0	-6.3	1.00	0.0	-6.6	5.07	2.4
24.5	-7.7	.24	-6.1	-6.8	3.75	0.9
25.0	-6.9	.64	-1.9	-7.0	3.45	0.5

TSC CH-47C #35: 3 DEG APRCH, 60 KT, 400 FT

TIME	BRITISH			FRENCH		
	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE COEF (DB)	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE CORR (DB)
25.5	-6.2	.37	-4.2	-7.1	3.57	0.7
26.0	-5.7	.66	-1.8	-6.3	3.43	0.5
26.5	-4.8	.73	-1.4	-5.1	3.02	0.0
27.0	-4.5	2.13	3.3	-5.1	3.49	0.6
27.5	-5.0	.36	-4.3	-5.3	3.56	0.6
28.0	-3.5	1.23	0.9	-5.0	4.12	1.3
28.5	-2.5	3.59	5.6	-3.3	4.21	1.4
29.0	-1.7	.67	-1.7	-2.9	3.90	1.0
29.5	-1.5	.47	-3.2	-2.4	4.07	1.2
30.0	0.0	.73	-1.3	-1.7	3.69	0.8
30.5	-1.8	.23	-6.3	-2.1	3.20	0.2
31.0	-1.0	.58	-2.3	-2.5	3.51	0.6
31.5	-0.9	1.21	0.8	-2.2	3.72	0.8
32.0	-1.2	.46	-3.3	-2.4	4.48	1.7
32.5	-0.5	3.56	5.5	-0.5	7.02	4.6
33.0	-0.5	5.98	7.8	0.0	7.13	4.7
33.5	-0.6	2.16	3.4	-0.5	7.87	5.6
34.0	-4.2	.77	-1.1	-3.1	6.30	3.8
34.5	-4.8	.17	-7.6	-3.0	5.29	2.6
35.0	-1.7	3.00	4.8	-1.0	6.45	3.9
35.5	-2.1	1.64	2.1	-1.8	4.84	2.1
36.0	-2.5	1.57	2.0	-2.4	5.11	2.4
36.5	-5.7	.71	-1.4	-4.8	3.08	0.1
37.0	-6.8	.00	-14.8	-6.3	3.09	0.1
37.5	-6.4	.28	-5.5	-7.5	3.55	0.6
38.0	-7.1	.19	-7.2	-8.7	3.34	0.4
38.5	-8.1	.00	-15.5	-9.0	2.79	-0.2
39.0	-8.1	.18	-7.4	-4.0	4.14	1.3
39.5	-9.3	.11	-9.3	-10.0	3.24	0.3
40.0	-11.0	.00	-12.3	-11.7	3.04	0.1
40.5	-11.7	.00	-18.9	-12.5	3.45	0.5
41.0	-11.8	.00	-15.3	-13.2	2.96	0.0
41.5	-12.3	.00	-18.5	-13.4	3.10	0.1
42.0	-13.0	.00	-18.1	-14.0	2.85	-0.2
42.5	-14.1	.00	-18.6	-14.4	2.94	0.0
43.0	-14.3	.00	-17.1	-15.1	3.11	0.1
43.5	-14.9	.00	-16.3	-15.0	2.82	-0.2
44.0	-15.4	.00	-17.0	-16.2	2.89	0.0

TSC BELL 212 #24: 6 DEG APRCH, 55 KT 380 FT

TIME	BRITISH			FRENCH		
	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE COEF (DB)	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE CORR (DB)
0.5	-14.4	10.33	10.1	-10.2	2.85	-0.2
1.0	-13.9	9.72	9.9	-10.2	2.81	-0.2
1.5	-14.8	8.77	9.4	-10.1	3.01	0.0
2.0	-16.1	3.54	5.5	-10.1	2.72	-0.3
2.5	-16.9	3.34	5.2	-10.3	2.76	-0.3
3.0	-17.7	1.64	2.2	-10.4	3.32	0.4
3.5	-18.5	2.76	4.4	-10.2	2.97	0.0
4.0	-17.8	2.58	4.1	-10.4	2.70	-0.3
4.5	-17.6	2.96	4.7	-10.8	3.09	0.1
5.0	-18.7	1.99	3.0	-11.1	2.73	-0.3
5.5	-18.2	3.61	5.6	-11.2	2.63	-0.4
6.0	-17.2	4.17	6.2	-10.9	2.92	0.0
6.5	-17.0	5.27	7.2	-11.1	3.40	0.5
7.0	-16.4	6.87	8.4	-10.8	3.06	0.1
7.5	-15.8	5.47	7.4	-10.4	3.33	0.4
8.0	-15.9	3.41	5.3	-10.6	3.17	0.2
8.5	-16.7	3.37	5.3	-11.0	3.68	0.8
9.0	-15.2	5.23	7.2	-10.2	3.65	0.8
9.5	-14.1	7.76	8.9	-10.1	3.97	1.1
10.0	-14.1	14.94	11.7	-10.5	4.31	1.5
10.5	-16.3	14.04	11.5	-11.2	4.05	1.2
11.0	-15.2	7.47	8.7	-10.5	3.71	0.8
11.5	-14.0	9.49	9.8	-10.3	3.22	0.3
12.0	-13.6	6.87	8.4	-10.1	3.58	0.7
12.5	-12.9	17.00	12.3	-9.7	3.54	0.6
13.0	-13.3	6.58	8.2	-9.4	3.83	1.0
13.5	-13.0	5.84	7.7	-9.2	3.49	0.6
14.0	-13.1	1.99	3.0	-9.2	3.51	0.6
14.5	-12.2	1.03	0.2	-9.3	3.64	0.7
15.0	-11.7	7.42	8.7	-9.3	3.64	0.7
15.5	-11.0	9.23	9.7	-9.4	3.44	0.5
16.0	-10.9	5.47	7.4	-8.8	4.03	1.2
16.5	-10.2	5.65	7.5	-8.1	3.86	1.0
17.0	-11.3	3.49	5.4	-8.3	3.72	0.8
17.5	-12.2	4.34	6.4	-8.0	3.35	0.4
18.0	-10.6	10.12	10.1	-7.5	3.20	0.2
18.5	-10.7	5.10	7.1	-7.6	3.44	0.5
19.0	-11.3	8.14	9.1	-7.8	3.14	0.2
19.5	-12.1	9.64	9.8	-7.9	3.05	0.1
20.0	-11.4	8.04	9.1	-7.5	3.14	0.2
20.5	-10.6	11.88	10.8	-7.6	3.13	0.1
21.0	-9.4	17.16	12.3	-7.2	3.20	0.2
21.5	-9.5	34.75	15.4	-7.5	3.27	0.3
22.0	-8.1	20.03	13.0	-7.4	3.39	0.5
22.5	-6.2	46.95	16.7	-7.0	3.57	0.7
23.0	-6.8	27.00	14.6	-6.5	3.41	0.5
23.5	-10.3	7.90	9.0	-6.8	3.24	0.3
24.0	-10.2	15.30	11.8	-6.5	3.26	0.3
24.5	-7.7	21.38	13.3	-6.0	3.06	0.1
25.0	-5.9	28.99	14.6	-5.9	3.79	0.9



TSC BELL 212 #24: 6 DEG APRCH, 55 KT 380 FT

TIME	BRITISH			FRENCH		
	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE COEF (DB)	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE CORR (DB)
25.5	-4.7	29.86	14.8	-6.0	4.12	1.3
26.0	-5.5	43.90	16.4	-6.3	3.58	0.7
26.5	-7.8	17.56	12.4	-6.7	3.02	0.0
27.0	-9.8	18.45	12.7	-7.6	2.77	-0.3
27.5	-10.5	24.51	13.9	-7.2	2.84	-0.2
28.0	-13.2	8.59	9.3	-8.2	2.80	-0.2
28.5	-12.7	5.70	7.6	-7.5	2.50	-0.6
29.0	-11.3	6.32	8.0	-6.8	2.76	-0.3
29.5	-10.9	5.88	7.7	-6.3	2.80	-0.2
30.0	-7.1	51.69	17.1	-5.2	2.83	-0.2
30.5	-4.8	26.74	14.3	-4.6	2.79	-0.2
31.0	-6.1	11.68	10.7	-4.7	3.09	0.1
31.5	-8.9	5.13	7.1	-4.5	2.81	-0.2
32.0	-7.3	18.17	12.6	-4.7	2.74	-0.3
32.5	-4.4	15.38	11.9	-4.0	2.95	0.0
33.0	-5.9	6.84	8.4	-3.9	2.80	-0.2
33.5	-6.0	8.33	9.2	-4.2	2.78	-0.2
34.0	-5.9	9.14	9.6	-4.4	2.80	-0.2
34.5	-5.5	13.20	11.2	-4.1	3.01	0.0
35.0	-3.6	12.73	11.1	-4.4	2.94	0.0
35.5	-5.6	6.78	8.3	-4.2	2.96	0.0
36.0	-3.8	28.61	14.6	-3.6	3.61	0.7
36.5	-3.2	7.99	9.0	-3.1	3.09	0.1
37.0	-3.7	5.89	7.7	-3.3	2.70	-0.3
37.5	-2.0	11.51	10.6	-2.9	3.43	0.5
38.0	-3.3	5.94	7.7	-2.4	3.25	0.3
38.5	-2.8	8.22	9.2	-2.2	3.06	0.1
39.0	-1.8	13.45	11.3	-2.0	3.41	0.5
39.5	-1.7	5.27	7.2	-1.9	3.95	1.1
40.0	-0.4	6.53	8.2	-0.9	5.02	2.3
40.5	-1.0	5.47	7.4	-1.0	4.34	1.5
41.0	-3.2	1.97	3.0	-2.0	3.49	0.6
41.5	-2.1	6.07	7.8	-1.9	3.57	0.7
42.0	0.0	6.85	8.4	-1.1	6.09	3.5
42.5	-2.0	2.82	4.5	-0.7	4.10	1.3
43.0	-0.3	2.10	3.2	0.0	5.90	3.3
43.5	-2.3	.65	-1.8	-1.0	3.89	1.0
44.0	-3.1	.38	-4.1	-1.3	3.37	0.4
44.5	-3.7	.15	-8.0	-0.8	3.23	0.3
45.0	-4.2	.00	-13.3	-1.1	2.74	-0.3
45.5	-3.5	.17	-7.6	-0.6	3.52	0.6
46.0	-3.5	.11	-9.5	-0.9	3.01	0.0
46.5	-3.4	.75	-1.2	-0.9	3.05	0.1
47.0	-3.8	2.38	3.8	-1.8	3.45	0.5
47.5	-3.2	.42	-3.7	-1.7	3.28	0.3
48.0	-4.5	3.04	4.8	-2.2	3.20	0.2
48.5	-5.8	2.49	4.0	-4.0	3.40	0.5
49.0	-5.1	2.15	3.3	-3.3	3.55	0.6
49.5	-5.2	4.00	6.0	-3.6	3.31	0.4
50.0	-5.6	3.05	4.8	-4.3	3.60	0.7

TSC BELL 212 #24: 6 DEG APRCH, 55 KT 380 FT

TIME	BRITISH			FRENCH		
	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE COEF (DB)	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE CORR (DB)
50.5	-6.6	3.68	5.7	-5.1	3.29	0.3
51.0	-7.2	.91	-0.4	-6.4	2.88	0.0
51.5	-7.0	3.11	4.9	-5.8	3.03	0.0
52.0	-6.1	2.20	3.4	-6.8	3.69	0.8
52.5	-7.7	5.47	7.4	-7.2	3.01	0.0
53.0	-8.3	2.53	4.0	-7.4	2.30	-0.8
53.5	-7.8	3.75	5.7	-7.9	2.53	-0.5
54.0	-11.1	4.08	6.1	-8.2	2.55	-0.5
54.5	-11.4	.41	-3.8	-9.6	2.43	-0.6
55.0	-12.9	1.39	1.4	-10.0	2.60	-0.4
55.5	-14.1	.85	-0.7	-11.1	2.52	-0.5
56.0	-13.4	.61	-2.1	-10.6	2.38	-0.7
56.5	-10.2	.26	-5.8	-11.4	2.88	0.0
57.0	-12.7	.33	-4.7	-12.6	2.53	-0.5
57.5	-13.0	.52	-2.8	-12.3	2.80	-0.2
58.0	-12.4	11.03	10.4	-11.4	2.81	-0.2
58.5	-14.5	12.24	10.9	-11.7	2.76	-0.3
59.0	-16.2	1.69	2.3	-12.6	2.78	-0.2
59.5	-14.7	11.99	10.8	-13.1	3.64	0.7
60.0	-14.6	.59	-2.2	-14.7	2.77	-0.3
60.5	-15.7	.31	-5.0	-13.7	3.21	0.2

TSC BELL 212 #27: 9 DEG APRCH, 58 KT, 420 FT

TIME	BRITISH			FRENCH		
	0.5 SEC RMS (RE: MAX)	IMPULSE CDEF	IMPULSE CDEF (DB)	0.5 SEC RMS (RE: MAX)	IMPULSE CDEF	IMPULSE CORR (DB)
0.5	-10.8	15.98	12.0	-10.5	3.65	0.7
1.0	-14.2	12.67	11.0	-10.8	3.10	0.1
1.5	-16.4	3.56	5.5	-10.9	2.88	0.0
2.0	-18.0	.84	-0.7	-10.7	2.99	0.0
2.5	-18.1	1.07	0.3	-10.1	3.17	0.2
3.0	-17.2	1.60	2.1	-10.2	3.01	0.0
3.5	-15.4	6.15	7.9	-10.1	2.75	-0.3
4.0	-14.5	7.76	8.9	-10.0	2.85	-0.2
4.5	-13.0	10.94	10.4	-10.0	2.89	0.0
5.0	-10.1	16.84	12.3	-9.1	2.96	0.0
5.5	-10.4	21.00	13.2	-9.3	2.91	0.0
6.0	-11.1	12.46	11.0	-9.3	2.86	0.0
6.5	-9.7	19.72	12.9	-8.4	2.92	0.0
7.0	-7.9	18.35	12.6	-8.3	3.90	1.0
7.5	-8.7	22.85	13.6	-8.4	3.20	0.2
8.0	-9.2	20.69	13.2	-8.3	2.95	0.0
8.5	-10.0	18.71	12.7	-8.3	2.81	-0.2
9.0	-10.2	17.11	12.3	-7.9	2.98	0.0
9.5	-11.8	20.34	13.1	-8.2	2.89	0.0
10.0	-11.1	15.19	11.8	-7.9	2.72	-0.3
10.5	-9.5	13.61	11.3	-7.6	2.78	-0.2
11.0	-8.5	13.00	11.1	-7.2	2.94	0.0
11.5	-8.6	16.46	12.2	-7.6	3.10	0.1
12.0	-7.4	22.00	13.4	-7.5	3.84	1.0
12.5	-6.9	20.11	13.0	-6.9	3.23	0.3
13.0	-6.5	19.50	12.9	-6.9	3.38	0.4
13.5	-6.5	21.01	13.2	-6.4	3.45	0.5
14.0	-7.5	24.67	13.9	-6.6	3.84	1.0
14.5	-6.9	23.55	13.7	-6.2	3.31	0.4
15.0	-5.9	16.35	12.1	-5.3	3.69	0.8
15.5	-7.5	19.09	12.8	-6.0	3.46	0.5
16.0	-6.5	22.21	13.5	-5.7	3.65	0.7
16.5	-3.8	20.09	13.0	-4.6	4.37	1.6
17.0	-2.4	23.50	13.7	-3.8	5.49	2.9
17.5	-3.1	30.96	14.9	-4.1	5.54	2.9
18.0	-4.4	22.85	13.6	-4.9	4.88	2.2
18.5	-4.5	21.70	13.4	-4.6	4.68	1.9
19.0	-3.6	26.97	14.3	-4.2	5.52	2.9
19.5	-3.3	22.67	13.6	-3.5	5.27	2.6
20.0	-2.9	19.79	13.0	-3.9	5.16	2.5
20.5	-2.7	16.06	12.1	-3.2	4.93	2.2
21.0	-3.6	26.30	14.2	-3.4	4.73	2.0
21.5	-3.4	15.77	12.0	-3.9	5.53	2.9
22.0	-1.5	9.24	9.7	-2.5	5.96	3.4
22.5	-1.8	14.91	11.7	-2.8	6.02	3.5
23.0	-3.4	13.63	11.3	-2.8	5.37	2.7
23.5	-1.8	12.28	10.9	-2.4	5.24	2.6
24.0	-2.7	14.65	11.7	-2.5	4.91	2.2
24.5	-1.9	19.69	12.9	-1.7	5.94	3.4
25.0	-0.5	6.91	8.4	-1.2	4.92	2.2

TSC BELL 212 #27: 9 DEG APRCH, 58 KT, 420 FT

TIME	BRITISH			FRENCH		
	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE COEF (DB)	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE CORR (DB)
25.5	0.0	6.39	8.1	-0.7	6.00	3.4
26.0	-0.7	10.54	10.2	-0.9	6.32	3.8
26.5	-1.9	5.99	7.8	-1.6	4.93	2.2
27.0	-0.4	7.68	8.9	-0.4	6.43	3.9
27.5	-0.7	4.57	6.6	0.0	7.19	4.8
28.0	-0.8	8.11	9.1	-0.4	6.09	3.5
28.5	-1.3	4.71	6.7	0.0	6.40	3.9
29.0	-3.3	1.47	1.7	-0.6	5.31	2.6
29.5	-4.4	.74	-1.3	-1.2	3.15	0.2
30.0	-4.4	.22	-6.5	-0.9	3.27	0.3
30.5	-4.2	.06	-11.7	-1.2	3.10	0.1
31.0	-3.6	.12	-8.9	-0.3	3.80	0.9
31.5	-4.3	.00	-13.4	-0.7	2.60	-0.4
32.0	-4.3	.06	-11.9	-0.5	2.76	-0.3
32.5	-4.6	.14	-8.2	-0.5	2.96	0.0
33.0	-4.6	.23	-6.3	-1.4	2.80	-0.2
33.5	-4.4	.58	-2.3	-0.9	3.35	0.4
34.0	-3.2	4.79	6.8	-0.9	4.95	2.2
34.5	-4.2	3.99	6.0	-1.7	4.47	1.7
35.0	-4.1	4.16	6.2	-2.7	4.74	2.0
35.5	-4.8	5.11	7.1	-3.3	4.27	1.5
36.0	-4.6	6.50	8.1	-4.0	4.05	1.2
36.5	-5.1	13.23	11.2	-4.7	5.35	2.7
37.0	-5.0	12.59	11.0	-4.5	4.98	2.3
37.5	-5.1	15.96	12.0	-4.9	4.66	1.9
38.0	-6.4	14.57	11.6	-6.0	3.93	1.1
38.5	-8.2	5.47	7.4	-7.1	2.88	0.0
39.0	-8.4	7.34	8.7	-7.1	2.86	-0.2
39.5	-9.8	2.60	4.2	-7.9	2.61	-0.4
40.0	-9.6	1.49	1.7	-8.5	2.84	-0.2
40.5	-12.4	.60	-2.2	-10.0	2.45	-0.6
41.0	-11.2	1.94	2.9	-10.1	2.80	-0.2
41.5	-6.3	1.66	2.2	-9.2	3.73	0.8
42.0	-12.3	8.61	9.4	-10.8	3.09	0.1
42.5	-14.4	2.56	4.1	-11.8	3.12	0.1
43.0	-15.8	1.95	2.9	-12.3	2.48	-0.6
43.5	-15.1	4.35	6.4	-13.1	2.57	-0.5
44.0	-14.8	1.00	0.0	-12.9	2.99	0.0
44.5	-16.1	.40	-4.0	-13.2	3.09	0.1

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BOLT BERANEK AND NEWMAN INC CANOGA PARK CALIF  
PHYSICAL ANALYSIS OF THE IMPULSIVE ASPECTS OF HELICOPTER NOISE.(U)  
APR 77 W J GALLOWAY

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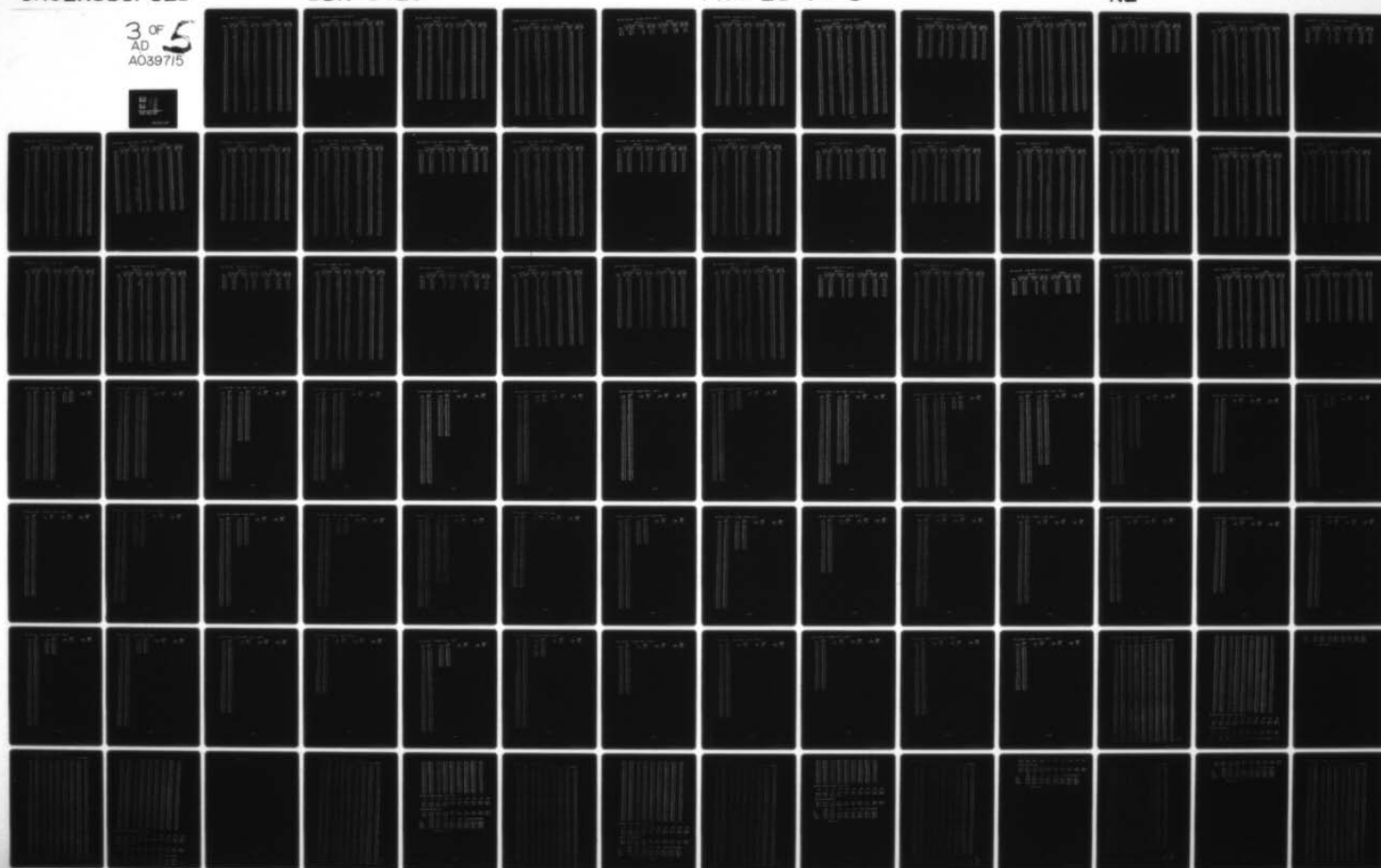
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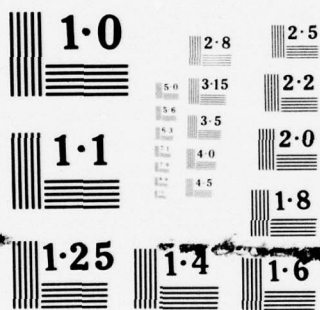
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NATIONAL BUREAU OF STANDARDS  
MICROCOPY RESOLUTION TEST CHART



TSC BELL 212 #31: FLYOVER, 61 KT, 500 FT

TIME	BRITISH			FRENCH		
	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE COEF (DB)	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE CORR (DB)
0.5	-9.0	6.64	8.2	-4.7	3.43	0.5
1.0	-8.3	9.83	9.9	-4.6	3.55	0.6
1.5	-8.4	12.08	10.8	-5.1	3.85	1.0
2.0	-9.0	7.33	8.7	-5.3	3.91	1.0
2.5	-10.5	6.92	8.4	-4.8	3.76	0.9
3.0	-10.1	4.33	6.4	-4.6	3.49	0.6
3.5	-9.4	3.30	5.2	-4.2	3.40	0.5
4.0	-7.8	12.98	11.1	-4.8	3.26	0.3
4.5	-5.4	10.18	10.1	-4.2	3.33	0.4
5.0	-3.3	25.16	14.0	-4.0	3.64	0.7
5.5	-4.6	13.28	11.2	-3.5	3.57	0.7
6.0	-5.2	14.13	11.5	-3.4	3.20	0.2
6.5	-5.5	13.02	11.1	-3.5	2.96	0.0
7.0	-3.9	25.17	14.0	-3.1	3.21	0.3
7.5	-2.1	22.08	13.4	-2.7	3.06	0.1
8.0	-0.9	24.97	14.0	-2.3	3.10	0.1
8.5	-3.1	35.25	15.5	-1.8	2.92	0.0
9.0	-0.9	20.37	13.1	-1.5	3.03	0.0
9.5	-1.2	31.59	15.0	-1.2	2.94	0.0
10.0	-0.5	33.85	15.3	-1.5	3.07	0.1
10.5	-1.0	23.69	13.7	-1.6	2.79	-0.2
11.0	-1.3	29.71	14.7	-1.3	2.66	-0.4
11.5	-2.3	23.82	13.8	-1.6	2.69	-0.3
12.0	-4.1	11.29	10.5	-1.6	2.62	-0.4
12.5	-5.6	5.17	7.1	-2.2	2.61	-0.4
13.0	-4.2	7.54	8.8	-1.8	2.52	-0.5
13.5	-1.8	21.38	13.3	-1.1	2.68	-0.4
14.0	-1.1	13.18	11.2	-0.9	2.80	-0.2
14.5	-1.7	5.46	7.4	-0.8	2.60	-0.5
15.0	-0.3	5.71	7.6	-0.6	2.55	-0.5
15.5	-1.8	4.62	6.7	-1.2	2.59	-0.5
16.0	-0.5	4.11	6.1	-1.1	2.78	-0.2
16.5	-1.5	1.54	1.9	-0.9	2.62	-0.4
17.0	-2.6	1.90	2.8	-1.2	2.66	-0.4
17.5	-1.8	.67	-1.7	-1.6	2.71	-0.3
18.0	-0.6	.71	-1.5	-0.8	2.72	-0.3
18.5	-0.7	.75	-1.2	-0.8	2.66	-0.4
19.0	-0.6	.38	-4.1	-0.8	2.66	-0.4
19.5	-0.9	.33	-4.8	-0.7	2.38	-0.7
20.0	-0.7	.22	-6.4	-1.2	2.61	-0.4
20.5	-0.8	.12	-8.9	-0.8	2.53	-0.5
21.0	-0.4	.23	-6.3	-0.7	2.39	-0.7
21.5	-0.5	.13	-8.6	-0.2	2.36	-0.7
22.0	0.0	.13	-8.6	0.0	2.31	-0.8
22.5	-1.0	.73	-1.4	-0.2	2.29	-0.8
23.0	-2.3	.18	-7.4	-0.7	2.14	-1.0
23.5	-2.6	.30	-5.2	-0.8	2.14	-1.0
24.0	-3.9	.20	-6.8	-1.0	2.16	-1.0
24.5	-4.0	.06	-11.9	-1.9	2.14	-1.0
25.0	-4.2	.00	-12.9	-2.5	2.13	-1.0

TSC BELL 212 #31: FLYOVER, 61 KT, 500 FT

TIME	BRITISH			FRENCH		
	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE COEF (DB)	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE CORR (DB)
25.5	-5.0	.00	-14.5	-3.2	2.52	-0.5
26.0	-3.7	.07	-11.1	-4.1	2.64	-0.4
26.5	-4.8	.00	-16.8	-4.4	2.41	-0.7
27.0	-4.4	.00	-13.1	-4.7	2.65	-0.4
27.5	-4.2	.00	-14.9	-4.3	3.02	0.0
28.0	-3.9	.00	-12.2	-4.4	2.99	0.0
28.5	-4.6	.00	-13.6	-4.6	2.55	-0.5
29.0	-4.4	.00	-15.9	-6.2	3.17	0.2
29.5	-6.8	.00	-17.2	-6.7	3.10	0.1
30.0	-5.6	.00	-17.4	-7.5	2.87	0.0
30.5	-4.7	.00	-15.9	-6.8	2.82	-0.2
31.0	-6.5	.00	-13.1	-7.5	3.01	0.0
31.5	-6.3	.00	-13.6	-7.1	2.74	-0.3
32.0	-6.1	.00	-22.6	-8.8	2.94	0.0
32.5	-6.9	.00	-15.4	-8.5	3.29	0.3
33.0	-8.7	.00	-19.0	-9.7	2.76	-0.3
33.5	-9.1	.00	-19.8	-9.4	2.87	0.0
34.0	-9.3	.00	-16.6	-8.9	3.18	0.2
34.5	-9.0	.00	-19.1	-9.8	2.80	-0.2
35.0	-11.7	.00	-17.6	-9.8	2.51	-0.6
35.5	-10.9	.00	-15.8	-10.3	3.07	0.1
36.0	-10.4	.00	-13.7	-10.5	3.01	0.0
36.5	-10.6	.00	-12.7	-11.4	3.14	0.2
37.0	-8.9	.19	-7.1	-11.2	3.07	0.1
37.5	-10.5	.78	-1.1	-12.6	2.80	-0.2
38.0	-16.0	.00	-14.8	-13.2	3.02	0.0
38.5	-16.3	.00	-19.3	-13.3	2.84	-0.2
39.0	-15.9	.00	-15.5	-12.4	2.69	-0.3
39.5	-12.4	.00	-13.9	-11.4	2.87	0.0

TSC BELL 212 #32: FLYOVER, 96 KT, 500 FT

TIME	BRITISH			FRENCH		
	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE COEF (DB)	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE CORR (DB)
0.5	-10.1	9.62	9.8	-1.7	5.86	3.3
1.0	-9.4	8.72	9.4	-0.9	5.83	3.2
1.5	-8.9	7.98	9.0	-0.5	4.93	2.2
2.0	-9.9	5.99	7.8	-0.6	4.36	1.6
2.5	-10.6	4.20	6.2	-0.7	3.95	1.1
3.0	-10.3	4.21	6.2	-0.8	3.79	0.9
3.5	-9.6	2.18	3.4	-1.0	3.45	0.5
4.0	-7.3	1.69	2.3	-0.5	3.20	0.2
4.5	-4.5	1.89	2.8	0.0	3.13	0.2
5.0	-4.1	1.43	1.6	-0.3	2.98	0.0
5.5	-4.5	2.75	4.4	-0.7	3.03	0.0
6.0	-3.0	1.41	1.5	-0.5	3.02	0.0
6.5	-3.2	1.29	1.1	-0.9	2.88	0.0
7.0	-3.7	1.11	0.5	-1.2	2.90	0.0
7.5	-1.7	1.32	1.2	-0.8	3.27	0.3
8.0	0.0	1.55	1.9	-0.5	3.73	0.8
8.5	-1.8	1.01	0.1	-1.7	3.39	0.5
9.0	-2.1	1.03	0.1	-2.3	3.83	1.0
9.5	-2.8	.81	-0.9	-2.3	3.24	0.3
10.0	-5.2	.09	-10.3	-3.0	2.73	-0.3
10.5	-6.0	.10	-9.9	-2.8	2.74	-0.3
11.0	-7.0	.00	-13.0	-2.8	2.48	-0.6
11.5	-8.2	.00	-18.4	-3.9	2.37	-0.7
12.0	-9.0	.00	-17.8	-4.4	2.51	-0.6
12.5	-9.7	.00	-15.0	-5.5	2.43	-0.6
13.0	-9.8	.00	-18.2	-6.4	2.71	-0.3
13.5	-9.5	.00	-18.7	-6.9	2.84	-0.2
14.0	-9.0	.00	-17.1	-7.9	2.74	-0.3
14.5	-10.0	.00	-19.1	-9.0	2.63	-0.4
15.0	-10.0	.00	-18.2	-9.1	2.51	-0.5
15.5	-11.2	.00	-18.6	-9.5	2.64	-0.4
16.0	-11.2	.00	-18.5	-10.4	2.53	-0.5
16.5	-11.8	.00	-16.6	-11.0	2.60	-0.5
17.0	-14.1	.00	-17.9	-11.3	2.79	-0.2
17.5	-15.9	.00	-16.4	-11.5	2.56	-0.5
18.0	-16.0	.00	-21.9	-11.8	2.56	-0.5
18.5	-14.3	.00	-21.3	-13.0	2.60	-0.4
19.0	-13.4	.00	-18.4	-13.2	2.92	0.0
19.5	-16.7	.00	-12.7	-13.8	2.51	-0.6
20.0	-19.5	.00	-22.8	-15.8	2.97	0.0
20.5	-18.2	.00	-15.4	-15.3	2.49	-0.6
21.0	-17.1	.00	-18.9	-15.1	2.93	0.0

TSC BELL 212 #36: FLYOVER, 105 KT, 450 FT

TIME	BRITISH			FRENCH		
	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE COEF (DB)	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE CORR (DB)
0.5	-7.2	9.19	9.6	-3.1	9.21	7.1
1.0	-7.8	19.57	12.9	-2.3	9.92	7.9
1.5	-5.9	17.03	12.3	-1.4	9.88	7.9
2.0	-6.4	17.81	12.5	-2.4	11.33	9.5
2.5	-8.0	13.60	11.3	-3.4	9.54	7.5
3.0	-10.1	13.20	11.2	-4.0	7.72	5.4
3.5	-9.5	12.12	10.8	-3.6	6.83	4.4
4.0	-9.5	20.75	13.2	-3.6	7.75	5.4
4.5	-8.5	25.97	14.1	-3.3	9.46	7.4
5.0	-9.3	25.25	14.0	-2.6	7.19	4.8
5.5	-9.7	15.55	11.9	-2.9	6.22	3.7
6.0	-9.4	12.15	10.8	-2.7	7.47	5.1
6.5	-8.2	8.50	9.3	-1.8	8.55	6.3
7.0	-7.4	9.64	9.8	-1.1	7.44	5.1
7.5	-7.7	13.78	11.4	-1.4	7.36	5.0
8.0	-8.5	17.31	12.4	-1.6	6.53	4.0
8.5	-8.7	11.06	10.4	-1.8	5.95	3.4
9.0	-7.7	7.00	8.5	-1.2	5.26	2.6
9.5	-8.3	7.12	8.5	-1.0	5.60	3.0
10.0	-8.6	6.70	8.3	-1.2	5.68	3.1
10.5	-7.5	9.48	9.8	-0.7	4.84	2.1
11.0	-7.8	1.46	1.6	-0.8	4.00	1.1
11.5	-7.7	3.02	4.8	-1.0	3.86	1.0
12.0	-6.5	1.56	1.9	-0.7	3.63	0.7
12.5	-6.2	1.15	0.6	-0.6	3.44	0.5
13.0	-6.6	.17	-7.5	-0.8	3.03	0.0
13.5	-5.6	.15	-8.1	-1.1	2.78	-0.2
14.0	-3.5	.11	-9.5	-1.0	2.82	-0.2
14.5	-2.7	.11	-9.2	-0.8	2.93	0.0
15.0	0.0	.26	-5.8	0.0	3.22	0.3
15.5	-1.4	.07	-11.1	-1.1	3.14	0.2
16.0	-1.9	.06	-11.9	-2.3	2.93	0.0
16.5	-3.3	.00	-14.2	-4.0	3.23	0.3
17.0	-4.2	.06	-11.9	-4.3	2.89	0.0
17.5	-5.6	.00	-17.2	-5.1	2.50	-0.6
18.0	-6.7	.00	-18.6	-5.8	2.73	-0.3
18.5	-8.2	.00	-21.0	-7.5	2.67	-0.4
19.0	-8.5	.00	-20.3	-8.9	2.91	0.0
19.5	-8.9	.00	-24.5	-9.6	3.14	0.2
20.0	-8.5	.00	-15.2	-10.0	2.93	0.0
20.5	-9.7	.00	-17.4	-9.2	2.47	-0.6
21.0	-11.2	.00	-18.9	-9.7	2.66	-0.4
21.5	-10.3	.00	-19.9	-9.9	2.42	-0.7
22.0	-10.2	.21	-6.6	-11.1	2.61	-0.4
22.5	-13.3	.00	-13.5	-11.5	2.53	-0.5
23.0	-14.3	.13	-8.7	-13.8	2.97	0.0
23.5	-15.5	.00	-12.5	-15.9	2.82	-0.2
24.0	-12.9	.00	-14.8	-15.4	3.15	0.2
24.5	-12.6	.00	-15.4	-14.5	2.79	-0.2
25.0	-14.3	.13	-8.6	-16.0	2.84	-0.2

TSC BELL 212 #36: FLYOVER, 105 KT, 450 FT

TIME	BRITISH			FRENCH		
	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE COEF (DB)	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE CORR (DB)
25.5	-18.4	.00	-12.3	-17.8	2.81	-0.2
26.0	-18.9	.00	-16.9	-17.3	2.84	-0.2
26.5	-18.1	.00	-15.6	-17.8	2.72	-0.3



TSC BELL 212 #37: FLYOVER, 115 KT, 500 FT

TIME	BRITISH			FRENCH		
	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE COEF (DB)	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE CORR (DB)
0.5	-14.6	6.98	8.4	-8.2	4.96	2.2
1.0	-11.6	14.00	11.5	-6.1	6.21	3.7
1.5	-8.8	12.77	11.1	-4.5	7.67	5.3
2.0	-8.3	20.39	13.1	-4.1	8.72	6.5
2.5	-6.5	16.64	12.2	-2.3	7.56	5.2
3.0	-5.0	26.60	14.2	-1.6	8.93	6.8
3.5	-3.9	22.29	13.5	-0.4	10.23	8.3
4.0	-2.4	14.46	11.6	-0.4	10.48	8.6
4.5	-5.3	14.41	11.6	-0.8	9.02	6.9
5.0	-5.2	13.51	11.3	-0.9	7.68	5.4
5.5	-5.8	20.59	13.1	-1.8	9.54	7.5
6.0	-5.1	21.90	13.4	-1.4	11.11	9.3
6.5	-4.0	15.62	11.9	-1.4	11.46	9.7
7.0	-4.5	23.36	13.7	-1.1	10.97	9.1
7.5	-4.0	14.31	11.6	-0.2	8.84	6.7
8.0	-5.4	13.72	11.4	-0.4	7.50	5.1
8.5	-5.4	11.73	10.7	0.0	6.00	3.4
9.0	-4.5	8.88	9.5	0.0	4.73	2.0
9.5	-5.6	7.74	8.9	-0.5	4.50	1.7
10.0	-6.0	5.91	7.7	-0.3	3.77	0.9
10.5	-4.7	15.91	12.0	-0.6	3.46	0.5
11.0	-3.7	7.65	8.8	-0.9	3.14	0.2
11.5	-1.5	11.30	10.5	-0.5	2.97	0.0
12.0	-3.6	.46	-3.3	-1.0	2.88	0.0
12.5	-1.4	1.80	2.6	-0.9	2.93	0.0
13.0	-2.1	.72	-1.4	-1.2	3.09	0.1
13.5	-1.7	.54	-2.7	-1.6	3.35	0.4
14.0	-0.9	.26	-5.7	-1.0	3.45	0.5
14.5	-0.4	2.66	4.3	-0.8	4.43	1.6
15.0	0.0	2.24	3.5	-1.7	5.72	3.1
15.5	-2.3	.34	-4.6	-3.6	3.71	0.8
16.0	-5.2	.00	-16.6	-5.0	2.59	-0.5
16.5	-6.8	.00	-14.5	-5.8	2.60	-0.5
17.0	-7.8	.00	-15.9	-7.6	2.63	-0.4
17.5	-9.0	.00	-20.6	-7.9	2.64	-0.4
18.0	-9.0	.00	-17.1	-7.4	2.61	-0.4
18.5	-9.9	.06	-11.9	-9.1	2.98	0.0
19.0	-10.3	.00	-16.9	-9.9	2.60	-0.5
19.5	-10.2	.00	-14.1	-10.3	2.94	0.0
20.0	-11.3	.00	-15.1	-11.7	2.83	-0.2
20.5	-13.0	.12	-8.9	-12.4	2.70	-0.3
21.0	-13.2	.00	-14.4	-12.7	2.58	-0.5
21.5	-14.4	.15	-8.2	-13.6	2.59	-0.5
22.0	-15.9	.43	-3.6	-13.5	2.92	0.0
22.5	-15.6	.08	-10.5	-15.2	2.60	-0.4
23.0	-17.3	.00	-17.1	-15.5	2.54	-0.5



TSC BELL 212 #43: 9 DEG APRCH, 60 KT, 410 FT

TIME	BRITISH			FRENCH		
	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE COEF (DB)	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE CORR (DB)
0.5	-11.5	4.91	6.9	-6.0	3.76	0.9
1.0	-11.3	5.44	7.4	-6.2	3.60	0.7
1.5	-12.0	4.11	6.1	-6.5	3.54	0.6
2.0	-11.5	10.42	10.2	-6.3	3.36	0.4
2.5	-9.6	12.23	10.9	-5.8	3.55	0.6
3.0	-8.0	16.14	12.1	-5.5	3.94	1.1
3.5	-6.9	21.90	13.4	-5.4	3.73	0.8
4.0	-6.8	32.13	15.1	-5.5	3.54	0.6
4.5	-6.8	14.17	11.5	-5.0	3.39	0.5
5.0	-6.2	15.51	11.9	-4.8	3.51	0.6
5.5	-7.2	31.16	14.9	-5.2	3.27	0.3
6.0	-8.0	29.44	14.7	-5.1	3.07	0.1
6.5	-8.3	11.39	10.6	-5.0	3.10	0.1
7.0	-6.8	16.43	12.2	-4.7	3.42	0.5
7.5	-4.4	27.96	14.5	-4.0	3.52	0.6
8.0	-4.6	14.56	11.6	-3.9	3.11	0.1
8.5	-5.2	13.68	11.4	-3.6	2.96	0.0
9.0	-6.0	17.57	12.4	-3.5	2.90	0.0
9.5	-6.5	11.89	10.8	-4.4	2.91	0.0
10.0	-5.7	12.97	11.1	-4.2	2.76	-0.3
10.5	-5.7	5.45	7.4	-3.3	2.68	-0.4
11.0	-4.3	5.23	7.2	-2.7	2.85	-0.2
11.5	-3.3	15.55	11.9	-2.9	3.31	0.4
12.0	-3.4	14.72	11.7	-2.9	3.07	0.1
12.5	-3.3	13.51	11.3	-2.2	2.88	0.0
13.0	-0.8	9.97	10.0	-1.8	3.39	0.5
13.5	-2.6	6.95	8.4	-2.2	3.06	0.1
14.0	-1.5	6.79	8.3	-1.8	3.24	0.3
14.5	-2.1	4.84	6.9	-1.9	3.02	0.0
15.0	-1.5	5.22	7.2	-1.7	3.69	0.8
15.5	-3.1	9.85	9.9	-2.6	3.41	0.5
16.0	-1.4	11.89	10.8	-1.5	3.10	0.1
16.5	-0.3	7.48	8.7	-1.0	3.78	0.9
17.0	-0.6	3.85	5.9	-0.4	3.49	0.6
17.5	-3.0	1.63	2.1	-1.1	2.98	0.0
18.0	-1.3	3.05	4.9	-1.0	3.59	0.7
18.5	0.0	3.00	4.8	0.0	3.85	1.0
19.0	-1.3	.92	-0.3	-0.5	3.17	0.2
19.5	-2.9	.37	-4.2	-1.3	2.42	-0.7
20.0	-2.9	.43	-3.6	-1.3	2.40	-0.7
20.5	-3.7	.23	-6.3	-0.9	2.15	-1.0
21.0	-4.2	.10	-9.9	-1.2	2.05	-1.1
21.5	-3.7	.00	-13.4	-0.4	2.13	-1.0
22.0	-3.3	.00	-13.3	0.0	2.15	-1.0
22.5	-4.3	.00	-14.0	-0.2	2.17	-0.9
23.0	-5.2	.00	-15.4	-0.6	2.14	-1.0
23.5	-4.7	.00	-15.4	-1.4	2.12	-1.0
24.0	-5.8	.00	-16.9	-2.1	2.26	-0.8
24.5	-5.6	.00	-15.9	-2.0	2.49	-0.6
25.0	-7.0	.00	-18.5	-3.2	2.61	-0.4

TSC BELL 212 #43: 9 DEG APRCH, 60 KT, 410 FT

TIME	BRITISH			FRENCH		
	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE COEF (DB)	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE CORR (DB)
25.5	-6.1	.19	-7.2	-3.6	2.81	-0.2
26.0	-5.1	.43	-3.6	-3.4	3.06	0.1
26.5	-6.1	.81	-0.9	-3.9	3.33	0.4
27.0	-5.3	1.05	0.2	-4.0	3.51	0.6
27.5	-6.0	.66	-1.8	-5.2	3.43	0.5
28.0	-8.4	.06	-11.7	-6.3	3.00	0.0
28.5	-8.1	.60	-2.2	-6.6	3.37	0.4
29.0	-8.5	3.72	5.7	-6.7	3.16	0.2
29.5	-7.7	2.72	4.4	-6.8	3.09	0.1
30.0	-9.3	2.66	4.3	-8.1	2.98	0.0
30.5	-8.9	9.69	9.9	-8.2	3.34	0.4
31.0	-8.6	1.68	2.3	-8.6	3.32	0.4
31.5	-9.7	5.52	7.4	-9.1	3.06	0.1
32.0	-13.1	3.01	4.8	-10.6	2.65	-0.4
32.5	-13.8	5.65	7.5	-10.4	3.06	0.1
33.0	-14.3	1.13	0.6	-11.4	2.99	0.0
33.5	-13.2	.73	-1.3	-11.9	2.81	-0.2

TIME	BRITISH			FRENCH		
	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE COEF (DB)	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE CORR (DB)
0.5	-1.5	.00	-12.3	0.0	3.95	1.1
1.0	-13.6	.48	-3.1	-11.9	4.32	1.5
1.5	-14.0	.00	-24.7	-11.2	4.08	1.2
2.0	-14.2	.00	-15.1	-8.1	3.24	0.3
2.5	-11.0	.00	-18.7	-9.0	3.06	0.1
3.0	-13.1	.00	-21.7	-10.0	3.57	0.7
3.5	-12.4	.00	-22.0	-14.1	3.20	0.2
4.0	-11.8	.00	-18.4	-10.3	2.70	-0.3
4.5	-10.5	.00	-16.2	-11.7	3.10	0.1
5.0	-11.1	.00	-20.2	-10.6	2.99	0.0
5.5	-13.0	.00	-22.6	-14.7	2.55	-0.5
6.0	-13.0	.00	-15.1	-14.7	2.80	-0.2
6.5	-15.4	.00	-19.7	-14.7	2.95	0.0
7.0	-15.5	.00	-24.7	-12.8	3.22	0.3
7.5	-16.1	.00	-25.4	-15.3	2.65	-0.4
8.0	-14.3	.00	-19.4	-14.8	3.11	0.1
8.5	-12.2	.00	-18.5	-14.6	2.76	-0.3
9.0	-11.7	.00	-19.5	-13.6	2.95	0.0
9.5	-10.1	.00	-13.2	-13.0	2.97	0.0
10.0	-11.0	.00	-19.0	-8.7	3.02	0.0
10.5	-11.8	.00	-21.9	-13.2	3.23	0.3
11.0	-11.0	.00	-24.2	-12.8	2.26	-0.8
11.5	-11.7	.00	-22.2	-14.4	2.81	-0.2
12.0	-13.3	.00	-21.8	-17.3	3.12	0.1
12.5	-10.1	.00	-23.9	-16.5	2.68	-0.4
13.0	-8.1	.00	-19.3	-15.3	2.50	-0.6
13.5	-8.5	.00	-21.1	-14.8	2.72	-0.3
14.0	-7.4	.00	-16.0	-15.1	2.91	0.0
14.5	-7.3	.00	-22.7	-14.7	2.78	-0.3
15.0	-7.6	.00	-23.3	-14.1	2.74	-0.3
15.5	-5.4	.00	-19.4	-12.4	2.91	0.0
16.0	-3.1	.00	-22.5	-11.6	2.94	0.0
16.5	-4.3	.00	-22.5	-12.1	2.73	-0.3
17.0	-4.3	.00	-19.3	-11.2	2.72	-0.3
17.5	-5.0	.00	-19.5	-11.6	2.72	-0.3
18.0	-0.7	.00	-13.6	-8.8	2.65	-0.4
18.5	-2.2	.00	-13.8	-8.7	2.69	-0.3
19.0	-2.3	.00	-21.6	-9.2	2.70	-0.3
19.5	-2.4	.00	-16.4	-8.8	2.69	-0.3
20.0	0.0	.00	-20.8	-7.8	2.84	-0.2
20.5	-1.8	.00	-14.7	-8.8	2.79	-0.2
21.0	-3.2	.00	-22.7	-10.0	2.85	-0.2
21.5	-1.5	.00	-18.0	-10.8	2.75	-0.3
22.0	-3.5	.00	-24.0	-10.6	2.75	-0.3
22.5	-4.2	.00	-21.3	-12.3	2.78	-0.2
23.0	-3.9	.00	-16.1	-12.5	2.80	-0.2
23.5	-5.1	.00	-14.5	-13.1	3.14	0.2
24.0	-2.4	.00	-12.2	-10.0	2.73	-0.3
24.5	-2.5	.00	-13.0	-12.6	3.08	0.1
25.0	-5.2	.00	-20.0	-12.4	3.08	0.1

TSC 3000 #34: FLYOVER, 75 MPH, 500 FT

TIME	BRITISH			FRENCH		
	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE COEF (DB)	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE CORR (DB)
25.5	-4.4	.00	-20.6	-13.4	2.77	-0.3
26.0	-3.6	.00	-18.1	-13.8	2.90	0.0
26.5	-5.2	.00	-17.4	-14.7	2.80	-0.2
27.0	-7.1	.00	-16.4	-13.8	2.83	-0.2
27.5	-7.6	.00	-16.4	-14.1	2.99	0.0
28.0	-7.7	.00	-14.5	-14.7	2.71	-0.3
28.5	-7.6	.00	-16.5	-16.0	2.72	-0.3
29.0	-3.9	.48	-3.2	-15.7	2.99	0.0
29.5	-9.3	.00	-21.4	-17.0	2.68	-0.4
30.0	-6.8	.00	-12.5	-16.4	2.63	-0.4
30.5	-11.2	.00	-22.5	-16.0	2.46	-0.6
31.0	-10.8	.00	-22.1	-16.5	2.78	-0.2
31.5	-12.7	.00	-21.1	-16.8	2.52	-0.5
32.0	-10.9	.00	-22.2	-16.4	2.79	-0.2

TSC 3000 #44: 6 DEG. APRCH., 60 MPH, 400 FT.

TIME	BRITISH			FRENCH		
	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE COEF (DB)	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE CORR (DB)
0.5	-11.1	1.73	2.4	-6.0	3.42	0.5
1.0	-11.4	.53	-2.7	-6.0	2.82	-0.2
1.5	-10.8	1.85	2.7	-4.9	2.72	-0.3
2.0	-13.5	.12	-9.1	-4.8	3.05	0.1
2.5	-14.5	.18	-7.3	-6.8	2.72	-0.3
3.0	-13.6	.00	-18.4	-8.0	3.21	0.2
3.5	-11.9	.00	-24.8	-8.7	2.89	0.0
4.0	-13.3	.00	-23.3	-8.6	3.03	0.0
4.5	-13.5	.00	-17.9	-10.2	2.66	-0.4
5.0	-11.9	.06	-12.0	-8.7	3.22	0.3
5.5	-8.0	.00	-12.4	-6.0	3.40	0.5
6.0	-9.1	.06	-11.6	-6.7	3.38	0.4
6.5	-9.8	.00	-20.0	-7.9	2.92	0.0
7.0	-10.7	.00	-23.5	-4.9	4.18	1.4
7.5	-8.6	.00	-13.0	-4.2	2.84	-0.2
8.0	-7.6	.00	-14.0	-7.0	2.63	-0.4
8.5	-2.1	1.87	2.7	-3.4	6.19	3.7
9.0	-3.6	1.42	1.5	-5.8	3.46	0.5
9.5	-4.7	.00	-22.6	-6.5	2.84	-0.2
10.0	-4.6	.00	-26.3	-5.4	2.51	-0.6
10.5	-7.1	.00	-26.4	-6.6	2.85	-0.2
11.0	-5.8	.00	-22.8	-6.3	2.80	-0.2
11.5	-5.6	.00	-23.2	-6.3	2.61	-0.4
12.0	-5.7	.00	-19.4	-6.5	2.89	0.0
12.5	-3.8	.00	-22.1	-2.9	2.86	-0.2
13.0	-2.7	.00	-19.6	-2.4	2.80	-0.2
13.5	0.0	1.68	2.3	0.0	4.72	2.0
14.0	-1.6	.12	-8.9	-1.6	2.98	0.0
14.5	-2.9	.12	-9.2	-3.0	2.96	0.0
15.0	-5.0	.07	-11.4	-4.4	2.41	-0.7
15.5	-5.3	.00	-15.4	-4.5	2.37	-0.7
16.0	-4.9	.31	-5.0	-4.5	2.79	-0.2
16.5	-5.8	.06	-11.6	-5.3	2.61	-0.4
17.0	-4.2	.22	-6.4	-5.1	3.33	0.4
17.5	-8.1	1.84	2.7	-7.2	3.54	0.6
18.0	-9.3	.00	-12.4	-7.8	2.60	-0.5
18.5	-10.7	.00	-15.6	-6.9	2.56	-0.5
19.0	-9.9	.00	-16.4	-6.4	3.14	0.2
19.5	-9.2	.00	-21.1	-4.9	3.13	0.2
20.0	-10.5	.00	-20.5	-6.5	2.86	-0.2
20.5	-12.6	.00	-22.6	-6.0	3.00	0.0
21.0	-13.4	1.46	1.7	-8.0	2.41	-0.7
21.5	-16.1	.00	-24.2	-9.5	2.76	-0.3
22.0	-13.0	.00	-16.3	-4.2	3.06	0.1
22.5	-15.1	.00	-14.4	-9.0	2.61	-0.4
23.0	-16.1	.00	-19.8	-7.2	2.51	-0.6
23.5	-13.9	.00	-23.1	-5.3	2.81	-0.2
24.0	-15.1	.00	-19.1	-9.6	2.65	-0.4
24.5	-14.3	.00	-15.5	-8.3	2.69	-0.3
25.0	-12.9	.00	-23.3	-13.4	2.88	0.0



TSC 300C #44: 6 DEG. APRCH., 60 MPH, 400 FT.

TIME	BRITISH			FRENCH		
	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE COEF (DB)	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE CORR (DB)
25.5	-15.9	.00	-20.7	-10.2	2.42	-0.7
26.0	-16.6	.00	-23.0	-9.5	3.14	0.2
26.5	-15.2	.07	-11.4	-11.7	3.00	0.0
27.0	-13.8	.24	-6.1	-11.4	3.12	0.1
27.5	-16.0	.09	-10.4	-12.1	3.03	0.0
28.0	-17.7	.00	-23.0	-12.0	2.80	-0.2
28.5	-16.5	.00	-22.5	-11.3	2.84	-0.2



TSC 206L #46: 6 DEG. APRCH, 70 MPH, 400 FT

TIME	BRITISH			FRENCH		
	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE COEF (DB)	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE CORR (DB)
0.5	-18.7	.00	-20.8	-11.1	3.80	0.9
1.0	-16.9	1.53	1.9	-12.5	3.18	0.2
1.5	-18.8	.00	-13.4	-11.9	2.54	-0.5
2.0	-19.0	.00	-16.7	-11.5	2.67	-0.4
2.5	-20.6	.00	-19.9	-11.0	4.23	1.4
3.0	-20.2	.00	-21.3	-11.3	3.05	0.1
3.5	-19.6	.07	-11.2	-10.8	2.93	0.0
4.0	-14.3	.00	-17.0	-9.4	2.71	-0.3
4.5	-16.4	.00	-16.3	-10.1	2.85	-0.2
5.0	-19.9	.00	-23.2	-8.3	3.02	0.0
5.5	-18.5	.00	-17.3	-10.4	3.23	0.3
6.0	-15.5	.00	-22.9	-9.7	2.93	0.0
6.5	-17.7	.00	-15.4	-9.9	2.88	0.0
7.0	-19.2	.00	-18.8	-9.8	2.63	-0.4
7.5	-18.5	.00	-19.9	-8.5	2.68	-0.4
8.0	-17.5	.00	-19.4	-8.1	2.79	-0.2
8.5	-15.2	.00	-16.3	-2.7	3.23	0.3
9.0	-12.6	.00	-15.3	-4.5	2.83	-0.2
9.5	-13.5	.00	-15.2	-3.7	4.17	1.3
10.0	-13.1	.16	-8.0	-5.1	2.61	-0.4
10.5	-12.6	.70	-1.5	-4.9	3.62	0.7
11.0	-13.4	.11	-9.5	-3.8	2.79	-0.2
11.5	-13.5	.15	-8.0	-4.8	2.88	0.0
12.0	-12.1	.12	-8.9	-5.3	4.22	1.4
12.5	-7.5	14.82	11.7	-4.5	3.72	0.8
13.0	-4.9	19.71	12.9	-1.6	4.94	2.2
13.5	-1.0	24.51	13.9	-1.6	11.48	9.7
14.0	-4.8	7.42	9.7	-2.6	5.89	3.3
14.5	-0.9	21.76	13.4	-0.5	9.37	7.3
15.0	-2.0	16.36	12.1	-0.6	4.49	1.7
15.5	-0.8	24.14	13.8	-0.8	6.19	3.7
16.0	-2.3	7.44	8.7	-1.4	3.65	0.8
16.5	0.0	30.70	14.9	-0.7	14.88	13.6
17.0	-5.5	3.76	5.8	-2.1	3.53	0.6
17.5	-6.6	4.92	6.9	-3.4	2.86	0.0
18.0	-7.5	1.35	1.3	-2.7	3.18	0.2
18.5	-8.5	.00	-16.9	-4.3	2.82	-0.2
19.0	-7.0	.26	-5.8	-3.0	2.74	-0.3
19.5	-4.4	.12	-9.2	-1.9	2.82	-0.2
20.0	-4.8	.10	-9.6	-2.7	2.81	-0.2
20.5	-4.7	.08	-10.9	-2.4	2.89	0.0
21.0	-2.0	.00	-13.2	-1.6	2.93	0.0
21.5	-2.4	.00	-15.2	-1.1	2.91	0.0
22.0	-1.4	7.32	8.6	-1.0	3.85	1.0
22.5	0.0	.61	-2.1	0.0	4.12	1.3
23.0	-1.2	.00	-12.5	0.0	2.62	-0.4
23.5	-2.2	.10	-9.7	-1.0	2.86	-0.2
24.0	-1.8	.17	-7.5	-1.3	2.80	-0.2
24.5	-2.5	.14	-8.3	-2.0	2.91	0.0
25.0	-2.5	.12	-8.9	-1.9	2.85	-0.2

TSC 206L #46: 6 DEG. APRCH, 70 MPH, 400 FT

TIME	BRITISH			FRENCH		
	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE COEF (DB)	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE CORR (DB)
25.5	-2.9	.06	-11.8	-2.1	2.63	-0.4
26.0	-4.5	.45	-3.4	-3.3	2.62	-0.4
26.5	-4.6	.19	-7.2	-2.3	3.21	0.2
27.0	-4.8	.09	-10.0	-1.2	2.77	-0.3
27.5	-5.1	.00	-12.3	-1.8	2.98	0.0
28.0	-4.9	.06	-11.7	-1.9	2.92	0.0
28.5	-5.7	.00	-15.6	-3.1	3.06	0.1
29.0	-6.9	.07	-11.3	-4.0	2.79	-0.2
29.5	-7.3	.00	-13.4	-4.4	2.83	-0.2
30.0	-5.0	.55	-2.6	-3.0	3.08	0.1
30.5	-5.1	1.45	1.6	-3.3	3.67	0.8
31.0	-5.9	4.31	6.3	-4.4	4.07	1.2
31.5	-6.4	.30	-5.1	-5.2	3.54	0.6
32.0	-7.4	.17	-7.5	-6.4	3.05	0.1
32.5	-7.2	.08	-10.8	-6.6	3.06	0.1
33.0	-6.3	.36	-4.4	-4.7	3.81	0.9
33.5	-7.1	3.36	5.3	-6.2	4.05	1.2
34.0	-8.0	.43	-3.6	-7.7	3.36	0.4
34.5	-9.1	.14	-8.5	-8.2	2.85	-0.2
35.0	-9.7	.21	-6.6	-8.4	4.26	1.4
35.5	-6.7	12.19	10.9	-7.1	5.82	3.2
36.0	-8.3	20.38	13.1	-8.2	5.96	3.4
36.5	-9.8	17.11	12.3	-8.8	5.84	3.3
37.0	-7.7	9.88	10.0	-8.0	5.75	3.1
37.5	-8.5	14.05	11.5	-9.5	7.33	5.0
38.0	-8.9	21.71	13.4	-9.4	8.36	6.1
38.5	-9.0	13.42	11.3	-9.5	6.33	3.8
39.0	-7.4	12.02	10.8	-8.8	8.17	5.9
39.5	-11.4	17.92	12.5	-10.8	3.76	0.9
40.0	-15.5	1.69	2.3	-11.3	3.33	0.4
40.5	-15.6	.31	-5.0	-12.9	3.30	0.3
41.0	-12.5	.18	-7.4	-13.0	3.53	0.6
41.5	-14.8	6.84	8.4	-13.9	3.12	0.1
42.0	-19.2	.22	-6.4	-13.0	3.04	0.0
42.5	-19.8	.00	-13.3	-13.9	2.71	-0.3

TSC 206L #71, FLYOVER, 130 MPH, 560 FT

TIME	BRITISH			FRENCH		
	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE COEF (DB)	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE CORR (DB)
0.5	-13.5	.98	0.0	-5.5	4.24	1.4
1.0	-10.7	2.60	4.1	-2.7	5.85	3.3
1.5	-6.7	4.34	6.4	-1.4	7.14	4.7
2.0	-3.9	1.07	0.3	0.0	6.15	3.6
2.5	-6.2	1.31	1.2	-0.3	6.23	3.7
3.0	-7.5	5.89	7.7	-2.1	3.86	1.0
3.5	-4.0	.25	-5.9	-0.4	4.75	2.0
4.0	-8.4	1.72	2.4	-1.4	4.53	1.8
4.5	-8.4	.70	-1.5	-2.3	3.54	0.6
5.0	-7.6	.06	-11.6	-2.4	3.63	0.7
5.5	-7.2	.70	-1.5	-1.6	3.32	0.4
6.0	-3.5	8.59	9.3	-2.5	3.93	1.1
6.5	-4.0	5.09	7.1	-2.4	3.29	0.3
7.0	-3.4	1.29	1.1	-0.9	2.98	0.0
7.5	-3.7	.10	-9.6	-0.2	3.38	0.4
8.0	-0.4	.29	-5.2	0.0	3.38	0.4
8.5	-3.0	.00	-12.7	-1.4	3.03	0.0
9.0	-2.1	.00	-13.0	-2.0	2.81	-0.2
9.5	-2.2	.20	-6.9	-2.6	2.97	0.0
10.0	-4.8	5.55	7.4	-3.9	3.01	0.0
10.5	-0.5	.78	-1.0	-2.3	3.66	0.8
11.0	-2.7	.14	-8.5	-2.4	2.58	-0.5
11.5	-2.4	.17	-7.6	-3.2	2.99	0.0
12.0	0.0	.00	-20.2	-1.2	2.76	-0.3
12.5	-1.5	.00	-19.0	-1.8	2.89	0.0
13.0	-1.0	.06	-11.8	-1.3	3.11	0.1
13.5	-3.8	.10	-9.8	-2.5	2.99	0.0
14.0	-5.9	.68	-1.7	-4.9	3.29	0.3
14.5	-7.4	.00	-13.0	-7.9	3.06	0.1
15.0	-7.6	.00	-17.3	-8.4	3.35	0.4
15.5	-8.8	.00	-16.0	-9.5	3.23	0.3
16.0	-10.2	.00	-20.0	-9.8	2.60	-0.5
16.5	-8.0	.00	-12.6	-9.2	3.18	0.2
17.0	-9.7	.00	-14.6	-10.7	2.77	-0.3
17.5	-7.6	.00	-14.7	-8.8	2.79	-0.2
18.0	-8.2	.00	-14.4	-8.2	2.77	-0.3
18.5	-9.4	.10	-9.9	-9.2	2.82	-0.2
19.0	-10.2	.00	-16.1	-11.3	2.90	0.0
19.5	-11.0	.08	-10.7	-10.7	2.97	0.0
20.0	-11.2	.07	-11.2	-12.6	2.86	-0.2

TSC 47G #19: 6 DEG. APRCH., 60 MPH, 400 FT. (RERUN)

TIME	BRITISH			FRENCH		
	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE COEF (DB)	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE CORR (DB)
0.5	-14.3	9.79	9.9	-16.4	7.99	5.7
1.0	-13.1	27.63	14.4	-14.9	8.84	6.7
1.5	-13.3	15.62	11.9	-15.4	10.43	8.5
2.0	-15.3	13.70	11.4	-16.3	4.55	1.8
2.5	-17.4	8.11	9.1	-16.8	3.22	0.3
3.0	-17.3	4.48	6.5	-17.3	4.01	1.2
3.5	-19.1	.45	-3.5	-17.3	2.82	-0.2
4.0	-14.9	5.96	7.8	-15.6	4.28	1.5
4.5	-14.8	3.87	5.9	-15.7	3.92	1.1
5.0	-14.0	11.36	10.6	-15.1	5.95	3.4
5.5	-13.0	12.72	11.0	-14.8	9.38	7.3
6.0	-12.1	16.58	12.2	-13.6	6.89	4.5
6.5	-11.6	15.76	12.0	-13.3	8.06	5.8
7.0	-10.9	5.48	7.4	-12.4	8.65	6.5
7.5	-9.8	12.66	11.0	-12.0	12.82	11.2
8.0	-7.5	27.10	14.3	-10.7	13.15	11.6
8.5	-7.0	23.89	13.8	-10.0	11.33	9.5
9.0	-8.2	11.43	10.6	-10.1	9.86	7.9
9.5	-8.3	4.93	6.9	-10.4	7.71	5.4
10.0	-6.9	26.67	14.3	-9.0	9.40	7.3
10.5	-4.3	19.85	13.0	-6.8	11.33	9.5
11.0	-5.0	14.94	11.7	-7.1	10.61	8.7
11.5	-4.3	10.65	10.3	-6.2	9.97	8.0
12.0	-4.0	12.09	10.8	-6.1	8.81	6.7
12.5	-3.8	11.65	10.7	-5.5	10.49	8.6
13.0	-4.3	11.37	10.6	-5.5	9.39	7.3
13.5	-3.0	10.56	10.2	-4.4	9.63	7.6
14.0	-1.6	6.96	8.4	-3.1	8.61	6.4
14.5	-0.9	6.47	8.1	-2.2	6.57	4.1
15.0	-1.5	1.91	2.8	-1.4	4.91	2.2
15.5	-0.9	1.74	2.4	-1.0	4.30	1.5
16.0	-0.4	1.10	0.4	-0.6	4.79	2.0
16.5	0.0	.53	-2.8	-0.4	5.00	2.3
17.0	0.4	1.02	0.1	-0.2	4.62	1.9
17.5	-1.0	.58	-2.3	-0.3	3.94	1.1
18.0	-1.1	.07	-11.5	0.0	3.65	0.8
18.5	-2.9	.00	-17.2	-1.5	3.70	0.8
19.0	-2.3	.08	-10.6	-0.7	3.67	0.8
19.5	-1.5	.12	-9.0	-0.6	3.86	1.0
20.0	-2.2	.57	-2.4	-1.6	3.90	1.0
20.5	-3.1	.48	-3.2	-2.4	3.74	0.9
21.0	-3.1	.83	-0.8	-3.5	4.59	1.8
21.5	-4.0	.52	-2.8	-4.8	5.06	2.4
22.0	-5.2	.14	-8.5	-7.2	4.61	1.8
22.5	-7.3	.00	-15.3	-9.1	4.38	1.6
23.0	-9.3	.06	-11.9	-10.7	3.82	0.9
23.5	-8.9	.19	-7.0	-10.8	4.99	2.3
24.0	-9.1	.06	-11.6	-11.5	3.88	1.0
24.5	-6.0	9.52	9.8	-7.9	12.78	11.2
25.0	-6.8	8.23	9.2	-9.8	12.39	10.7

TSC 47G #19: 6 DEG. APRCH. 60 MPH, 400 FT. (RERUN)

TIME	BRITISH			FRENCH		
	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE COEF (DB)	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE CORR (DB)
25.5	-9.8	.37	-4.3	-11.7	4.02	1.2
26.0	-11.1	.00	-17.5	-11.7	2.83	-0.2
26.5	-11.9	.10	-9.8	-11.7	3.12	0.1
27.0	-12.3	.12	-9.0	-11.9	3.18	0.2
27.5	-12.1	.20	-6.9	-12.5	3.40	0.5
28.0	-12.8	.30	-5.2	-12.6	3.50	0.6
28.5	-13.9	.12	-8.9	-12.9	3.26	0.3
29.0	-14.4	.27	-5.7	-13.4	2.91	0.0
29.5	-14.5	.58	-2.3	-13.8	3.34	0.4
30.0	-14.5	.33	-4.8	-14.1	2.98	0.0
30.5	-15.8	.34	-4.6	-14.4	2.70	-0.3
31.0	-16.8	.11	-9.4	-14.5	2.61	-0.4



TSC 470 #19: 6 DEG. APRCH., 60MPH, 400 FT.

TIME	BRITISH			FRENCH		
	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE COEF (DB)	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE CORR (DB)
0.5	-15.0	7.05	8.5	-16.2	7.91	5.6
1.0	-12.6	21.64	13.4	-15.0	9.04	6.9
1.5	-12.9	28.67	14.6	-15.5	10.64	8.7
2.0	-15.5	4.35	6.4	-16.3	4.56	1.8
2.5	-17.4	4.14	6.2	-16.7	3.21	0.2
3.0	-17.2	7.68	8.9	-17.3	4.04	1.2
3.5	-19.0	.83	-0.8	-17.2	2.78	-0.2
4.0	-14.8	2.65	4.2	-15.6	4.26	1.4
4.5	-14.7	1.65	2.2	-15.7	3.93	1.1
5.0	-14.1	8.18	9.1	-15.1	5.99	3.4
5.5	-12.9	11.43	10.6	-14.7	9.21	7.1
6.0	-12.1	15.26	11.8	-13.6	6.89	4.5
6.5	-11.5	16.39	12.1	-13.3	7.99	5.7
7.0	-10.6	11.82	10.7	-12.5	8.75	6.6
7.5	-10.0	11.22	10.5	-12.0	12.84	11.3
8.0	-7.3	7.16	8.6	-10.7	13.14	11.6
8.5	-7.1	15.50	11.9	-10.0	11.34	9.5
9.0	-7.6	18.29	12.6	-10.0	9.68	7.6
9.5	-8.3	17.19	12.4	-10.4	7.74	5.4
10.0	-6.9	7.95	9.0	-9.0	9.45	7.4
10.5	-4.2	11.08	10.4	-6.8	11.34	9.5
11.0	-4.9	20.11	13.0	-7.1	10.58	8.7
11.5	-3.8	11.86	10.7	-6.0	9.77	7.7
12.0	-4.3	12.78	11.1	-6.2	8.88	6.7
12.5	-3.7	8.18	9.1	-5.5	10.34	8.4
13.0	-4.0	12.71	11.0	-5.5	9.52	7.5
13.5	-2.9	11.59	10.6	-4.4	9.48	7.4
14.0	-1.5	7.58	8.8	-3.1	8.66	6.5
14.5	-0.3	4.22	6.3	-2.2	6.57	4.1
15.0	-1.0	2.33	3.7	-1.3	4.92	2.2
15.5	-1.0	1.05	0.2	-0.9	4.35	1.5
16.0	-0.4	1.19	0.8	-0.6	4.74	2.0
16.5	0.0	.57	-2.4	-0.4	5.03	2.3
17.0	0.0	1.02	0.1	-0.2	4.56	1.8
17.5	-1.1	.22	-6.6	-0.3	3.94	1.1
18.0	-1.1	.13	-8.8	0.0	3.68	0.8
18.5	-2.8	.00	-16.8	-1.5	3.71	0.8
19.0	-2.1	.00	-13.0	-0.7	3.64	0.7
19.5	-1.2	.12	-9.1	-0.6	3.85	1.0
20.0	-2.2	1.84	2.7	-1.7	3.94	1.1
20.5	-3.0	.75	-1.2	-2.4	3.70	0.8
21.0	-2.9	1.53	1.9	-3.5	4.68	1.9
21.5	-3.7	.47	-3.3	-4.8	5.03	2.3
22.0	-5.3	.09	-10.2	-7.2	4.66	1.9
22.5	-7.2	.00	-15.4	-9.1	4.33	1.5
23.0	-9.3	.07	-11.2	-10.8	3.84	1.0
23.5	-8.8	.19	-7.1	-10.8	4.94	2.2
24.0	-9.0	.07	-11.3	-11.0	5.35	2.7
24.5	-5.3	6.98	8.4	-8.1	13.56	12.1
25.0	-7.3	10.71	10.3	-9.8	12.32	10.7



TSC 47G #19: 6 DEG. APRCH., 60MPH, 400 FT.

TIME	BRITISH			FRENCH		
	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE COEF (DB)	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE CORR (DB)
25.5	-9.6	.41	-3.8	-11.6	4.03	1.2
26.0	-11.1	.00	-16.9	-11.8	2.83	-0.2
26.5	-11.8	.09	-10.3	-11.7	3.11	0.1
27.0	-12.2	.10	-9.6	-11.9	3.17	0.2
27.5	-11.9	.19	-7.0	-12.3	3.43	0.5
28.0	-12.7	.16	-7.9	-12.7	3.46	0.5
28.5	-14.0	.15	-8.2	-12.8	3.19	0.2
29.0	-14.4	.26	-5.8	-13.5	2.98	0.0
29.5	-14.4	.62	-2.0	-13.7	3.33	0.4
30.0	-14.4	.50	-2.9	-14.2	3.02	0.0
30.5	-15.8	.39	-4.1	-14.4	2.65	-0.4
31.0	-16.6	.15	-8.1	-14.6	2.64	-0.4

TIME	BRITISH			FRENCH		
	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE COEF (DB)	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE CORR (DB)
0.5	-14.8	.00	-18.6	-11.2	2.82	-0.2
1.0	-13.9	.00	-16.0	-9.8	2.68	-0.4
1.5	-13.9	.00	-19.5	-9.6	2.78	-0.2
2.0	-13.9	.00	-18.5	-10.4	2.91	0.0
2.5	-12.3	.00	-20.7	-10.4	2.87	0.0
3.0	-11.9	.00	-18.5	-9.7	2.98	0.0
3.5	-10.8	.00	-20.7	-8.2	2.84	-0.2
4.0	-10.7	.00	-18.3	-7.4	2.75	-0.3
4.5	-9.0	.00	-20.4	-6.6	2.57	-0.5
5.0	-7.9	.00	-21.0	-5.4	2.73	-0.3
5.5	-6.9	.00	-17.7	-5.0	3.11	0.1
6.0	-3.9	.00	-22.9	-2.9	2.79	-0.2
6.5	-3.4	.00	-27.6	-2.9	3.05	0.1
7.0	-2.0	.00	-21.5	-2.1	2.88	0.0
7.5	-1.5	.00	-20.1	-1.7	3.25	0.3
8.0	-2.2	.00	-24.2	-1.9	3.09	0.1
8.5	-2.1	.00	-24.1	-1.4	2.96	0.0
9.0	-2.0	.00	-24.2	-1.3	2.94	0.0
9.5	-1.2	.00	-23.6	-0.7	3.17	0.2
10.0	-1.2	.00	-22.0	-0.3	3.07	0.1
10.5	-0.4	.00	-16.7	0.0	2.82	-0.2
11.0	0.0	.00	-23.0	0.0	2.80	-0.2
11.5	-1.2	.00	-23.2	-1.2	2.81	-0.2
12.0	-2.6	.00	-20.9	-2.2	2.68	-0.4
12.5	-1.0	.00	-15.7	-2.4	2.88	0.0
13.0	-0.8	.00	-21.3	-2.4	2.89	0.0
13.5	-0.8	.00	-19.2	-2.8	3.14	0.2
14.0	-2.4	.00	-16.2	-3.9	3.26	0.3
14.5	-2.0	.00	-13.3	-4.1	3.21	0.3
15.0	-2.4	.00	-17.2	-4.4	3.26	0.3
15.5	-5.0	.00	-23.5	-5.8	2.78	-0.2
16.0	-3.6	.00	-19.2	-5.1	3.01	0.0
16.5	-3.0	.00	-17.7	-5.1	2.97	0.0
17.0	-4.4	.00	-15.1	-6.3	3.11	0.1
17.5	-4.2	.00	-14.7	-6.6	3.10	0.1
18.0	-5.0	.00	-17.3	-7.4	2.96	0.0
18.5	-6.4	.00	-17.3	-8.5	2.87	0.0
19.0	-8.9	.00	-19.7	-9.6	2.89	0.0
19.5	-9.1	.00	-19.5	-9.9	2.53	-0.5
20.0	-6.4	.00	-20.9	-8.0	3.03	0.0
20.5	-6.3	.00	-18.1	-7.3	2.73	-0.3
21.0	-6.5	.00	-18.1	-7.7	2.68	-0.4
21.5	-3.5	.06	-12.0	-6.3	2.98	0.0
22.0	-3.3	.00	-17.9	-6.6	3.14	0.2
22.5	-5.2	.00	-17.9	-7.9	2.93	0.0
23.0	-3.6	.00	-14.2	-7.2	3.05	0.1
23.5	-6.3	.00	-15.9	-9.2	2.84	-0.2
24.0	-8.4	.00	-17.3	-10.3	2.82	-0.2
24.5	-9.0	.00	-18.1	-11.0	2.73	-0.3
25.0	-10.0	.00	-17.1	-11.5	2.69	-0.4

TSC 47G #29: FLYOVER, 68 MPH, 500 FT.

TIME	BRITISH			FRENCH		
	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE COEF (DB)	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE CORR (DB)
25.5	-9.0	.00	-17.2	-10.6	2.81	-0.2
26.0	-7.8	.00	-12.2	-10.4	3.10	0.1
26.5	-10.5	.00	-15.8	-11.3	2.83	-0.2
27.0	-11.0	.00	-17.6	-11.6	2.91	0.0
27.5	-10.3	.00	-13.7	-11.6	2.95	0.0
28.0	-8.3	.00	-15.1	-10.9	2.84	-0.2
28.5	-8.6	.00	-14.8	-11.0	3.25	0.3
29.0	-11.1	.07	-11.5	-12.6	2.79	-0.2
29.5	-12.1	.00	-16.5	-13.5	3.20	0.2
30.0	-12.6	.00	-17.7	-13.1	2.77	-0.3
30.5	-12.4	.00	-17.6	-13.2	3.21	0.3
31.0	-12.2	.00	-15.2	-13.9	3.08	0.1
31.5	-13.8	.27	-5.7	-15.0	3.01	0.0
32.0	-15.1	.00	-18.5	-16.3	2.84	-0.2
32.5	-14.4	.00	-14.5	-16.2	2.97	0.0

TSC 47G #30: FLYOVER, 75 MPH, 500 FT

TIME	BRITISH			FRENCH		
	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE COEF (DB)	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE CORR (DB)
0.5	-16.9	.11	-9.2	-11.8	3.15	0.2
1.0	-15.4	.00	-14.3	-11.8	3.01	0.0
1.5	-14.2	.00	-14.6	-10.5	2.71	-0.3
2.0	-13.4	.11	-9.3	-9.3	2.91	0.0
2.5	-12.0	.16	-7.7	-8.6	3.19	0.2
3.0	-11.2	.00	-17.7	-8.1	2.60	-0.5
3.5	-9.1	.06	-11.8	-7.7	2.87	0.0
4.0	-6.7	.00	-19.1	-6.0	2.67	-0.4
4.5	-5.7	.00	-21.5	-4.5	2.60	-0.5
5.0	-4.3	.00	-20.2	-2.8	2.47	-0.6
5.5	-3.5	.00	-25.0	-1.8	2.54	-0.5
6.0	-1.8	.00	-19.6	-0.4	2.74	-0.3
6.5	-1.0	.00	-27.3	0.0	2.70	-0.3
7.0	-0.9	.00	-24.6	-0.6	2.79	-0.2
7.5	0.0	.00	-25.8	0.0	2.83	-0.2
8.0	-0.5	.00	-22.6	-0.8	2.86	-0.2
8.5	0.0	.00	-21.6	0.0	2.76	-0.3
9.0	-1.3	.00	-25.8	-0.8	2.73	-0.3
9.5	-0.7	.00	-24.0	-1.6	2.63	-0.4
10.0	-0.7	.00	-24.3	-2.1	2.52	-0.5
10.5	-1.4	.00	-17.6	-3.3	2.45	-0.6
11.0	-4.0	.00	-20.0	-4.6	2.53	-0.5
11.5	-2.6	.00	-17.9	-5.4	2.79	-0.2
12.0	-5.0	.00	-18.8	-7.2	2.99	0.0
12.5	-6.6	.00	-13.8	-9.0	3.15	0.2
13.0	-6.6	.00	-20.2	-8.9	2.98	0.0
13.5	-5.4	.00	-23.6	-8.7	2.88	0.0
14.0	-6.8	.00	-18.0	-8.6	2.91	0.0
14.5	-5.6	.00	-13.8	-8.7	3.04	0.1

TSC 47G #41: 9 DEG APRCH., 400 FT.

TIME	BRITISH			FRENCH		
	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE COEF (DB)	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE CORR (DB)
0.5	-14.5	2.07	3.2	-11.7	3.14	0.2
1.0	-12.0	14.02	11.5	-10.6	4.42	1.6
1.5	-11.0	3.52	5.5	-10.4	5.00	2.3
2.0	-12.1	4.75	6.8	-10.6	4.16	1.3
2.5	-14.3	.64	-1.9	-11.2	3.07	0.1
3.0	-13.6	1.79	2.5	-11.2	2.92	0.0
3.5	-13.1	.53	-2.7	-11.0	2.96	0.0
4.0	-12.0	.39	-4.0	-10.1	2.73	-0.3
4.5	-11.0	.21	-6.7	-9.7	2.58	-0.5
5.0	-10.0	1.24	0.9	-9.2	2.75	-0.3
5.5	-10.6	.08	-10.8	-8.7	2.74	-0.3
6.0	-8.6	.23	-6.3	-7.2	2.93	0.0
6.5	-5.2	2.30	3.6	-4.8	4.36	1.6
7.0	-2.3	7.89	9.0	-2.4	6.10	3.5
7.5	0.0	6.00	7.8	-0.5	7.55	5.2
8.0	-0.5	1.05	0.2	-0.3	6.00	3.4
8.5	0.0	.72	-1.4	0.0	5.23	2.6
9.0	-2.6	.44	-3.6	-2.2	3.42	0.5
9.5	-4.0	.00	-12.4	-3.2	2.76	-0.3
10.0	-4.3	.00	-16.1	-3.7	2.72	-0.3
10.5	-4.4	.00	-22.2	-4.0	2.64	-0.4
11.0	-4.0	.00	-19.4	-3.5	2.85	-0.2
11.5	-3.9	.00	-22.9	-3.4	2.98	0.0
12.0	-4.6	.00	-20.8	-3.7	2.51	-0.6
12.5	-4.6	.00	-21.9	-4.1	2.65	-0.4
13.0	-5.2	.00	-19.3	-4.7	2.51	-0.6
13.5	-5.4	.00	-22.4	-5.0	2.60	-0.5
14.0	-6.5	.00	-22.0	-5.7	2.51	-0.5
14.5	-7.1	.00	-20.6	-6.4	2.83	-0.2
15.0	-7.6	.00	-19.1	-7.7	2.82	-0.2
15.5	-6.2	.00	-19.0	-7.9	3.41	0.5
16.0	-7.6	.00	-21.7	-9.4	2.83	-0.2
16.5	-7.9	.00	-15.8	-9.5	3.50	0.6
17.0	-9.1	.00	-20.2	-10.8	2.99	0.0
17.5	-8.6	.00	-23.6	-11.3	3.22	0.3
18.0	-8.3	.00	-22.0	-11.2	3.43	0.5
18.5	-9.9	.00	-19.4	-12.0	3.51	0.6
19.0	-11.5	.00	-13.9	-12.7	3.15	0.2
19.5	-11.9	.00	-13.3	-12.7	3.40	0.5
20.0	-12.3	.00	-16.7	-13.2	3.15	0.2
20.5	-11.9	.00	-15.4	-12.3	2.89	0.0
21.0	-11.3	.00	-17.1	-13.0	3.28	0.3
21.5	-12.7	.00	-20.4	-13.2	2.95	0.0
22.0	-13.8	.00	-18.8	-13.2	2.57	-0.5
22.5	-16.2	.00	-13.5	-15.1	2.91	0.0
23.0	-17.6	.00	-17.9	-14.6	2.73	-0.3
23.5	-15.5	.00	-21.5	-15.1	2.64	-0.4
24.0	-15.5	.00	-19.8	-15.8	2.72	-0.3
24.5	-16.0	.00	-18.7	-15.6	2.94	0.0
25.0	-16.4	.00	-19.0	-15.3	2.88	0.0



TSC 500C #58: FLYOVER, 70 MPH, 500 FT.

TIME	BRITISH			FRENCH		
	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE COEF (DB)	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE CORR (DB)
0.5	-10.0	.00	-16.3	-8.9	2.91	0.0
1.0	-8.2	.29	-5.4	-8.2	2.99	0.0
1.5	-6.7	.00	-12.2	-7.8	3.19	0.2
2.0	-6.1	.00	-16.4	-7.4	3.09	0.1
2.5	-7.8	.00	-22.9	-7.6	2.88	0.0
3.0	-8.5	.00	-23.1	-7.7	2.81	-0.2
3.5	-8.2	.09	-10.3	-7.1	3.02	0.0
4.0	-7.2	.00	-12.7	-6.6	2.88	0.0
4.5	-9.3	.00	-14.4	-6.9	2.75	-0.3
5.0	-9.3	.00	-19.5	-6.8	2.60	-0.5
5.5	-8.4	.00	-12.5	-6.0	2.89	0.0
6.0	-1.9	15.59	11.9	-4.2	9.59	7.5
6.5	0.0	3.63	5.6	-2.6	6.12	3.6
7.0	-8.1	.00	-19.6	-5.1	2.92	0.0
7.5	-5.7	.00	-21.8	-4.3	2.86	0.0
8.0	-7.1	.00	-20.0	-4.7	2.81	-0.2
8.5	-7.0	.00	-20.3	-4.5	2.72	-0.3
9.0	-7.5	.00	-17.7	-5.0	2.66	-0.4
9.5	-7.4	.00	-21.2	-4.0	2.71	-0.3
10.0	-5.2	.00	-20.3	-2.6	2.72	-0.3
10.5	-4.4	.00	-15.6	-2.2	2.61	-0.4
11.0	-3.5	.00	-23.1	-1.5	2.66	-0.4
11.5	-2.7	.00	-22.2	-1.3	2.75	-0.3
12.0	-2.8	.00	-20.5	-1.0	2.63	-0.4
12.5	-0.9	.00	-20.6	-0.6	2.72	-0.3
13.0	-0.9	.00	-21.5	-0.2	2.87	0.0
13.5	-0.5	.00	-20.5	0.0	2.83	-0.2
14.0	-0.2	.00	-19.0	0.0	2.82	-0.2
14.5	-1.6	.00	-22.0	-1.3	2.75	-0.3
15.0	-2.8	.00	-18.3	-2.1	3.03	0.0
15.5	-3.5	.00	-19.7	-2.4	2.86	-0.2
16.0	-3.4	.00	-18.5	-2.8	3.07	0.1
16.5	-4.5	.07	-11.4	-4.1	2.86	-0.2
17.0	-4.7	.00	-15.8	-4.5	2.84	-0.2
17.5	-7.9	.00	-21.8	-5.8	3.08	0.1
18.0	-9.1	.00	-17.1	-7.1	2.77	-0.3
18.5	-11.2	.00	-14.8	-8.7	2.69	-0.4
19.0	-13.2	.00	-17.3	-10.3	3.01	0.0
19.5	-12.9	.00	-17.6	-11.0	2.72	-0.3
20.0	-12.3	.15	-8.0	-10.2	2.85	-0.2
20.5	-11.6	.00	-13.3	-10.3	2.70	-0.3
21.0	-13.3	.06	-11.9	-10.8	2.73	-0.3
21.5	-14.6	.07	-11.4	-11.0	2.80	-0.2
22.0	-15.4	.00	-15.3	-11.4	2.88	0.0
22.5	-16.0	.00	-17.3	-12.5	2.89	0.0
23.0	-16.1	.00	-15.6	-12.3	3.10	0.1
23.5	-16.4	.00	-14.6	-12.4	2.77	-0.3



TSC 500C #65: 6 DEG. APRCH., 69 MPH, 400 FT.

TIME	BRITISH			FRENCH		
	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE COEF (DB)	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE CORR (DB)
0.5	-11.7	.06	-12.0	-8.8	2.82	-0.2
1.0	-11.6	.09	-10.0	-10.3	2.99	0.0
1.5	-13.0	.12	-8.9	-10.6	2.76	-0.3
2.0	-14.4	.00	-17.6	-10.4	3.14	0.2
2.5	-13.0	.00	-15.0	-9.2	2.81	-0.2
3.0	-10.1	.00	-13.0	-8.1	2.82	-0.2
3.5	-7.2	.13	-8.6	-6.9	3.00	0.0
4.0	-6.9	.29	-5.3	-7.1	3.11	0.1
4.5	-7.7	.50	-3.0	-8.0	3.21	0.2
5.0	-10.7	.29	-5.3	-9.3	3.48	0.6
5.5	-12.3	.11	-9.6	-8.5	3.13	0.2
6.0	-11.1	.17	-7.7	-8.6	3.22	0.3
6.5	-8.8	.30	-5.1	-7.2	3.08	0.1
7.0	-5.3	.09	-10.0	-4.6	3.34	0.4
7.5	-5.7	.00	-18.4	-3.9	2.68	-0.4
8.0	-7.0	.00	-19.9	-4.7	2.81	-0.2
8.5	-6.9	.00	-14.9	-5.0	3.10	0.1
9.0	-4.8	.00	-12.9	-3.7	2.96	0.0
9.5	-5.1	.12	-9.0	-3.4	2.97	0.0
10.0	-6.5	.00	-21.1	-3.0	2.47	-0.6
10.5	-5.5	.00	-20.9	-2.1	2.73	-0.3
11.0	-4.9	.00	-20.5	-1.4	2.63	-0.4
11.5	-1.3	.06	-11.7	-0.4	3.10	0.1
12.0	-0.3	.09	-10.2	0.0	2.73	-0.3
12.5	-4.5	.00	-16.5	-1.5	2.65	-0.4
13.0	-3.1	.00	-16.7	-1.2	2.86	-0.2
13.5	-0.9	.00	-15.0	-1.0	3.05	0.1
14.0	-1.3	.00	-21.6	-1.4	2.84	-0.2
14.5	-0.8	.00	-19.2	-1.3	2.97	0.0
15.0	-2.6	.00	-19.5	-2.0	3.06	0.1
15.5	-4.3	.00	-16.6	-4.1	2.96	0.0
16.0	-3.9	.18	-7.3	-3.3	3.68	0.8
16.5	-1.8	.64	-1.9	-1.6	4.36	1.6
17.0	0.0	.57	-2.4	-1.0	4.61	1.8
17.5	-2.2	1.33	1.2	-3.0	4.46	1.7
18.0	-6.6	.29	-5.2	-6.2	3.34	0.4
18.5	-8.2	.28	-5.4	-6.2	3.25	0.3
19.0	-9.2	.37	-4.3	-6.2	3.11	0.1
19.5	-10.5	.42	-3.7	-6.2	2.96	0.0
20.0	-9.9	.59	-2.3	-7.2	2.86	0.0
20.5	-11.6	.53	-2.8	-9.4	3.57	0.7
21.0	-14.6	.30	-5.2	-9.8	3.61	0.7
21.5	-14.3	.07	-11.5	-8.5	3.18	0.2
22.0	-16.0	.07	-11.1	-10.5	3.39	0.4
22.5	-17.2	.07	-11.1	-10.5	2.77	-0.3
23.0	-17.1	.00	-13.6	-11.4	3.32	0.4

TSC 500C #109: FLYOVER 150 MPH, 500 FT

TIME	BRITISH			FRENCH		
	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE COEF (DB)	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE CORR (DB)
0.5	-12.5	.00	-14.6	-11.6	3.11	0.1
1.0	-14.7	.00	-24.3	-12.5	3.08	0.1
1.5	-8.3	.12	-9.1	-10.7	3.86	1.0
2.0	-9.3	.00	-22.3	-10.1	3.68	0.8
2.5	-11.0	.00	-21.4	-10.2	3.23	0.3
3.0	-11.8	.00	-17.3	-11.4	3.42	0.5
3.5	-9.1	.00	-20.3	-10.4	3.23	0.3
4.0	-9.6	.00	-22.2	-8.7	2.92	0.0
4.5	-9.0	.00	-21.8	-7.8	2.88	0.0
5.0	-10.3	.00	-21.6	-7.7	2.76	-0.3
5.5	-9.3	.00	-22.2	-7.3	2.77	-0.3
6.0	-9.3	.00	-21.2	-6.4	2.76	-0.3
6.5	-9.9	.00	-21.3	-6.1	2.52	-0.5
7.0	-8.6	.00	-22.7	-5.7	2.67	-0.4
7.5	-7.4	.00	-24.3	-5.2	2.62	-0.4
8.0	-6.6	.00	-24.6	-4.5	2.50	-0.6
8.5	-6.0	.00	-26.1	-4.3	2.62	-0.4
9.0	-5.1	.00	-28.0	-3.6	2.52	-0.5
9.5	-5.3	.00	-26.9	-2.9	2.49	-0.6
10.0	-2.3	.00	-15.2	-1.6	2.83	-0.2
10.5	-1.1	.00	-27.1	-0.4	2.77	-0.3
11.0	0.3	.00	-23.5	0.0	2.75	-0.3
11.5	0.0	.00	-24.3	0.0	2.80	-0.2
12.0	-0.3	.00	-26.1	-0.3	2.66	-0.4
12.5	-1.4	.00	-23.1	-1.2	2.84	-0.2
13.0	-0.5	.00	-25.2	-0.4	2.69	-0.4
13.5	0.0	.00	-22.6	-0.3	2.61	-0.4
14.0	-0.2	.00	-20.8	-0.3	2.73	-0.3
14.5	-2.2	.00	-20.7	-2.1	3.13	0.2
15.0	-2.3	.00	-12.3	-3.3	2.89	0.0
15.5	-4.7	.16	-7.8	-6.2	3.07	0.1
16.0	-7.3	.00	-14.8	-8.9	2.99	0.0
16.5	-8.8	.00	-18.4	-10.1	2.95	0.0
17.0	-10.1	.14	-8.5	-11.3	3.61	0.7
17.5	-12.1	.08	-10.9	-12.5	3.34	0.4
18.0	-12.4	.06	-11.7	-12.4	2.99	0.0
18.5	-13.0	.00	-17.3	-13.2	2.87	0.0
19.0	-15.8	.18	-7.3	-15.3	3.30	0.3
19.5	-18.3	.00	-16.2	-15.5	3.32	0.4
20.0	-19.2	.00	-16.5	-16.3	2.89	0.0

TSC 500C #110: FLYOVER, 130 MPH, 500FT.

TIME	BRITISH			FRENCH		
	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE COEF (DB)	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE CORR (DB)
0.5	-20.7	.00	-20.3	-18.5	2.95	0.0
1.0	-17.8	.00	-19.7	-15.8	3.09	0.1
1.5	-18.5	.00	-24.8	-16.6	3.23	0.3
2.0	-18.1	.00	-18.2	-16.8	3.10	0.1
2.5	-13.0	.21	-6.7	-14.5	3.47	0.5
3.0	-11.8	.14	-8.3	-13.9	3.72	0.8
3.5	-14.6	.00	-18.1	-13.5	3.40	0.5
4.0	-10.2	.00	-19.7	-11.8	3.57	0.7
4.5	-9.9	.00	-23.4	-11.3	3.39	0.5
5.0	-10.9	.00	-24.9	-11.3	3.24	0.3
5.5	-10.7	.00	-27.7	-10.3	3.22	0.3
6.0	-12.8	.00	-21.9	-10.8	2.75	-0.3
6.5	-14.5	.00	-30.1	-10.9	2.86	-0.2
7.0	-13.1	.00	-22.2	-9.9	2.85	-0.2
7.5	-13.6	.00	-24.2	-9.5	2.66	-0.4
8.0	-14.3	.00	-24.4	-9.1	2.72	-0.3
8.5	-14.3	.00	-21.1	-9.2	2.75	-0.3
9.0	-10.5	.00	-18.6	-7.7	2.83	-0.2
9.5	-8.9	.00	-25.0	-7.3	2.95	0.0
10.0	-8.6	.00	-27.6	-6.9	2.90	0.0
10.5	-7.7	.00	-18.6	-6.9	2.89	0.0
11.0	-6.8	.00	-25.7	-6.1	2.66	-0.4
11.5	-7.2	.00	-24.4	-5.8	2.67	-0.4
12.0	-7.1	.00	-22.9	-5.3	2.68	-0.4
12.5	-5.5	.00	-20.8	-4.5	2.65	-0.4
13.0	-4.5	.00	-23.9	-3.9	2.69	-0.4
13.5	-4.5	.00	-20.9	-3.9	2.72	-0.3
14.0	-4.6	.00	-25.3	-4.1	2.76	-0.3
14.5	-4.7	.00	-25.8	-3.8	2.74	-0.3
15.0	-2.9	.00	-23.0	-2.5	2.83	-0.2
15.5	-2.9	.00	-27.4	-2.7	2.66	-0.4
16.0	-2.4	.00	-20.9	-2.5	2.73	-0.3
16.5	-2.3	.00	-24.3	-1.9	2.63	-0.4
17.0	-2.0	.00	-22.8	-1.8	2.58	-0.5
17.5	-1.1	.00	-21.1	-1.1	2.73	-0.3
18.0	-1.4	.00	-22.7	0.0	2.71	-0.3
18.5	0.0	.00	-19.7	0.0	2.92	0.0
19.0	-1.0	.00	-15.7	-0.9	2.95	0.0
19.5	-2.9	.00	-17.9	-3.4	2.75	-0.3
20.0	-3.8	.00	-16.3	-5.0	2.93	0.0
20.5	-6.9	.00	-16.1	-8.2	3.17	0.2
21.0	-9.0	.00	-15.4	-9.8	2.89	0.0
21.5	-9.5	.08	-10.5	-11.4	2.91	0.0
22.0	-11.0	.00	-14.2	-11.7	2.76	-0.3
22.5	-12.3	.00	-14.9	-12.3	3.12	0.1
23.0	-14.4	.00	-14.0	-14.2	2.74	-0.3
23.5	-14.3	.00	-19.7	-14.3	2.77	-0.3
24.0	-14.4	.00	-14.5	-14.2	3.04	0.1
24.5	-16.8	.00	-15.7	-14.1	2.98	0.0
25.0	-18.3	.00	-17.6	-16.2	2.74	-0.3

TSC S-61 #16: 9 DEG APRCH, 60 KT, 400 FT

TIME	BRITISH			FRENCH		
	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE COEF (DB)	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE CORR (DB)
0.5	-13.5	.12	-8.9	-12.9	2.49	-0.6
1.0	-11.1	1.11	0.5	-13.6	3.04	0.0
1.5	-8.9	1.35	1.3	-12.5	3.58	0.7
2.0	-3.6	25.69	14.1	-9.8	6.47	4.0
2.5	-6.8	15.54	11.9	-11.8	4.78	2.0
3.0	-13.4	.48	-3.2	-11.0	2.25	-0.8
3.5	-13.6	.14	-8.3	-11.1	2.71	-0.3
4.0	-12.4	.00	-12.2	-9.7	2.40	-0.7
4.5	-11.6	.00	-12.3	-9.1	2.46	-0.6
5.0	-12.6	.07	-11.5	-9.1	2.22	-0.9
5.5	-12.5	.11	-9.6	-10.8	2.62	-0.4
6.0	-12.5	.00	-16.2	-9.6	2.33	-0.8
6.5	-13.2	.00	-16.9	-8.2	2.13	-1.0
7.0	-11.7	.07	-11.1	-9.8	2.98	0.0
7.5	-11.7	.00	-17.0	-7.2	2.13	-1.0
8.0	-10.5	.00	-18.0	-8.7	2.42	-0.7
8.5	-10.9	.00	-15.6	-8.5	2.36	-0.7
9.0	-10.4	.00	-12.8	-6.7	2.25	-0.9
9.5	-8.9	.00	-12.3	-6.2	2.05	-1.1
10.0	-7.4	.11	-9.3	-6.8	2.21	-0.9
10.5	-6.2	.11	-9.4	-6.3	2.42	-0.7
11.0	-7.4	.29	-5.3	-6.1	2.18	-0.9
11.5	-7.9	.00	-13.6	-5.4	2.06	-1.1
12.0	-7.4	.00	-15.2	-5.3	1.97	-1.2
12.5	-6.9	.00	-14.9	-4.8	2.07	-1.1
13.0	-8.0	.00	-20.4	-4.5	1.93	-1.2
13.5	-8.4	.00	-15.4	-3.6	2.01	-1.1
14.0	-7.5	.00	-17.2	-2.0	1.89	-1.3
14.5	-6.4	.00	-14.5	-1.9	1.86	-1.3
15.0	-5.1	.00	-16.4	-1.1	1.77	-1.4
15.5	-4.2	.00	-21.3	0.0	1.77	-1.4
16.0	-4.0	.00	-12.9	0.0	1.81	-1.4
16.5	-2.8	.00	-15.8	0.0	1.95	-1.2
17.0	-1.3	.09	-10.0	-1.8	2.31	-0.8
17.5	-0.2	.14	-8.5	-3.4	2.20	-0.9
18.0	0.0	.08	-10.9	-4.5	2.80	-0.2
18.5	-0.5	.00	-12.7	-6.1	2.95	0.0
19.0	-0.5	.00	-14.9	-5.2	2.93	0.0
19.5	0.0	.00	-18.3	-4.3	2.54	-0.5
20.0	-0.5	.00	-14.5	-4.3	2.49	-0.6
20.5	0.0	.46	-3.3	-3.7	3.81	0.9
21.0	-2.8	.00	-12.8	-6.2	2.67	-0.4
21.5	-4.6	.00	-16.7	-8.2	2.67	-0.4
22.0	-6.7	.00	-17.2	-10.0	2.31	-0.8
22.5	-7.2	.00	-15.1	-10.9	2.49	-0.6
23.0	-8.9	.00	-14.6	-13.0	3.14	0.2
23.5	-11.1	.00	-19.1	-13.7	2.70	-0.3
24.0	-9.9	.00	-21.7	-13.8	3.03	0.0
24.5	-10.4	.00	-24.0	-14.2	2.75	-0.3
25.0	-10.8	.00	-19.0	-15.1	2.49	-0.6

TSC S-61 #16: 9 DEG APRCH, 60 KT, 400 FT

TIME	BRITISH			FRENCH		
	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE COEF (DB)	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE CORR (DB)
25.5	-12.4	.00	-19.8	-15.8	2.74	-0.3
26.0	-13.6	.00	-20.9	-14.9	2.81	-0.2
26.5	-13.6	.00	-19.6	-16.1	2.57	-0.5
27.0	-15.2	.00	-20.5	-14.6	2.59	-0.5
27.5	-13.1	.00	-19.0	-16.6	3.10	0.1
28.0	-11.7	.00	-12.3	-16.5	3.02	0.0
28.5	-16.0	.00	-18.6	-17.1	2.76	-0.3



TSC S-61 #18: FLYOVER, 60 KT, 500FT

TIME	BRITISH			FRENCH		
	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE COEF (DB)	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE CORR (DB)
0.5	-8.4	4.76	6.8	-10.3	3.62	0.7
1.0	-3.4	8.44	9.3	-8.3	5.85	3.3
1.5	-1.5	2.18	3.4	-6.2	5.99	3.4
2.0	-2.2	8.50	9.3	-8.2	7.66	5.3
2.5	-2.9	12.92	11.1	-8.5	9.72	7.7
3.0	-2.7	12.29	10.9	-7.9	8.29	6.1
3.5	-5.5	9.38	9.7	-8.5	5.40	2.8
4.0	-6.8	7.85	9.0	-9.6	3.74	0.9
4.5	-6.7	5.23	7.2	-8.5	3.51	0.6
5.0	-10.0	.64	-1.9	-10.5	2.83	-0.2
5.5	-9.7	2.12	3.3	-8.8	2.88	0.0
6.0	-11.7	1.05	0.2	-8.7	2.46	-0.6
6.5	-9.9	.98	0.0	-8.5	2.87	0.0
7.0	-4.0	17.47	12.4	-7.5	5.74	3.1
7.5	-4.6	7.62	8.8	-9.1	4.78	2.0
8.0	-4.8	4.35	6.4	-7.6	2.97	0.0
8.5	-5.6	1.71	2.3	-5.2	3.20	0.2
9.0	-5.7	1.29	1.1	-4.7	3.45	0.5
9.5	-4.3	.42	-3.7	-6.8	2.99	0.0
10.0	-4.9	.49	-3.1	-5.5	3.26	0.3
10.5	-2.8	1.73	2.4	-6.4	4.14	1.3
11.0	-4.3	.59	-2.2	-6.2	2.83	-0.2
11.5	-3.5	.78	-1.0	-5.1	2.98	0.0
12.0	-1.9	.84	-0.7	-4.9	3.28	0.3
12.5	-2.2	.13	-8.8	-4.3	2.79	-0.2
13.0	-1.1	.36	-4.4	-4.7	2.57	-0.5
13.5	-0.5	.06	-11.8	-2.9	2.49	-0.6
14.0	-0.9	.00	-12.6	-2.6	2.50	-0.6
14.5	0.0	.00	-14.2	-2.6	2.55	-0.5
15.0	0.0	.09	-10.4	-2.2	2.57	-0.5
15.5	-0.4	.00	-15.2	-2.1	2.58	-0.5
16.0	-0.2	.00	-16.8	-1.5	2.46	-0.6
16.5	-0.3	.00	-16.0	-0.4	2.29	-0.8
17.0	-1.9	.00	-13.5	-0.5	2.26	-0.8
17.5	-2.4	.00	-17.1	0.0	2.15	-1.0
18.0	-2.2	.00	-12.5	0.0	2.24	-0.9
18.5	-3.0	.00	-20.2	-0.2	2.22	-0.9
19.0	-3.4	.00	-19.1	-1.3	2.03	-1.1
19.5	-3.2	.00	-19.4	-2.0	2.28	-0.8
20.0	-3.3	.00	-17.6	-3.4	2.40	-0.7
20.5	-4.9	.00	-21.1	-3.4	2.29	-0.8
21.0	-6.0	.00	-18.0	-4.5	2.29	-0.8
21.5	-5.4	.00	-19.0	-6.1	2.53	-0.5
22.0	-6.3	.00	-21.1	-6.9	2.45	-0.6
22.5	-6.5	.00	-23.1	-6.1	2.35	-0.7
23.0	-6.8	.00	-20.1	-8.5	2.47	-0.6
23.5	-9.9	.00	-15.3	-9.5	2.32	-0.8
24.0	-10.8	.00	-21.2	-10.1	2.41	-0.7
24.5	-12.2	.00	-15.8	-9.3	2.26	-0.8
25.0	-14.4	.00	-17.2	-9.7	2.13	-1.0



TSC S-61 #18: FLYOVER, 60 KT, 500FT

TIME	BRITISH			FRENCH		
	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE COEF (DB)	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE CORR (DB)
25.5	-14.2	.00	-15.6	-10.9	2.14	-1.0
26.0	-13.2	.00	-14.5	-11.6	2.52	-0.5
26.5	-13.2	.12	-9.2	-11.4	2.61	-0.4
27.0	-14.7	.00	-16.4	-12.4	3.08	0.1
27.5	-16.3	.00	-22.9	-14.6	2.50	-0.6
28.0	-16.3	.00	-19.9	-14.2	2.59	-0.5

TSC 5-61 #20: 6 DEG APRCH, 60 KT, 400 FT

TIME	BRITISH			FRENCH		
	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE COEF (DB)	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE CORR (DB)
0.5	-9.4	.13	-8.6	-6.7	2.41	-0.7
1.0	-8.8	.51	-2.9	-6.8	2.67	-0.4
1.5	-8.1	.22	-6.4	-5.6	2.46	-0.6
2.0	-8.6	.00	-12.1	-4.2	2.23	-0.9
2.5	-9.9	.06	-12.0	-4.4	2.23	-0.9
3.0	-9.0	.06	-11.7	-4.7	2.35	-0.7
3.5	-9.7	.00	-14.7	-3.6	2.16	-1.0
4.0	-9.4	.06	-11.8	-4.3	2.14	-1.0
4.5	-7.9	.14	-8.5	-4.1	2.14	-1.0
5.0	-4.4	3.77	5.8	-3.3	2.34	-0.7
5.5	-5.0	1.45	1.6	-3.5	2.49	-0.6
6.0	-5.0	.08	-10.7	-3.3	2.21	-0.9
6.5	-3.1	.00	-13.1	-2.8	2.25	-0.9
7.0	-3.3	.00	-14.3	-3.4	2.43	-0.7
7.5	-3.1	.00	-17.4	-3.3	2.88	0.0
8.0	-2.9	.00	-18.5	-3.6	2.82	-0.2
8.5	-2.4	.00	-18.2	-3.9	3.33	0.4
9.0	-1.7	.19	-7.0	-1.7	3.67	0.8
9.5	-1.4	.33	-4.7	-1.2	4.19	1.4
10.0	-0.5	1.05	0.2	0.0	4.38	1.6
10.5	-1.3	.58	-2.3	-0.8	4.28	1.5
11.0	0.0	2.60	4.2	-0.3	5.66	3.0
11.5	-2.4	2.76	4.4	-2.3	5.84	3.3
12.0	-2.2	4.86	6.9	-2.6	6.26	3.7
12.5	-5.2	.95	-0.2	-5.0	4.25	1.4
13.0	-6.1	2.33	3.7	-6.5	4.86	2.1
13.5	-6.5	4.58	6.6	-7.2	5.25	2.6
14.0	-8.0	3.08	4.9	-8.9	4.14	1.3
14.5	-9.3	4.38	6.4	-10.4	5.88	3.3
15.0	-10.5	2.49	4.0	-11.3	4.30	1.5
15.5	-8.8	4.54	6.6	-11.3	5.95	3.4
16.0	-10.6	2.32	3.7	-12.6	4.36	1.6
16.5	-12.9	2.75	4.4	-13.9	3.79	0.9
17.0	-14.4	1.75	2.4	-14.4	3.21	0.3
17.5	-14.9	.47	-3.3	-14.4	3.60	0.7
18.0	-15.2	.20	-6.9	-15.1	3.42	0.5
18.5	-16.2	.10	-9.6	-16.3	3.81	0.9
19.0	-17.2	.00	-12.5	-16.2	3.96	1.1
19.5	-16.7	.45	-3.5	-15.4	3.20	0.2
20.0	-18.0	.45	-3.4	-16.9	4.14	1.3
20.5	-18.2	.47	-3.2	-16.9	4.31	1.5

TSC S-61 #34: FLYOVER, 115 KT, 500 FT

TIME	BRITISH			FRENCH		
	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE COEF (DB)	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE CORR (DB)
0.5	-11.7	.00	-13.4	-6.5	2.46	-0.6
1.0	-10.6	.00	-13.5	-5.5	2.59	-0.5
1.5	-11.2	.00	-14.9	-6.0	2.55	-0.5
2.0	-11.5	.00	-24.5	-6.9	2.45	-0.6
2.5	-7.9	.34	-4.6	-5.3	2.51	-0.5
3.0	-6.4	.06	-11.9	-4.7	2.89	0.0
3.5	-8.2	.00	-14.5	-5.1	2.79	-0.2
4.0	-5.3	.08	-10.7	-5.6	3.28	0.3
4.5	-3.8	.00	-12.2	-4.0	2.97	0.0
5.0	-2.7	.07	-11.2	-1.9	2.94	0.0
5.5	-1.5	.00	-14.6	-0.7	2.75	-0.3
6.0	0.0	.00	-14.0	0.0	3.09	0.1
6.5	-2.1	.00	-16.2	-0.9	2.83	-0.2
7.0	-2.7	.00	-15.8	-0.6	2.86	-0.2
7.5	-2.9	.00	-18.8	-0.6	2.61	-0.4
8.0	-4.4	.12	-9.1	-2.4	2.91	0.0
8.5	-4.9	.00	-23.6	-2.7	3.18	0.2
9.0	-6.2	.00	-13.2	-4.4	3.14	0.2
9.5	-8.4	.00	-17.8	-6.5	2.89	0.0
10.0	-10.3	.00	-16.3	-6.5	2.81	-0.2
10.5	-11.0	.00	-18.9	-6.0	2.85	-0.2
11.0	-10.6	.00	-18.7	-8.3	2.66	-0.4
11.5	-12.5	.00	-18.9	-10.8	2.72	-0.3
12.0	-12.1	.00	-20.2	-10.5	3.07	0.1
12.5	-11.2	.00	-18.2	-8.5	2.78	-0.2
13.0	-11.7	.00	-21.5	-9.3	3.02	0.0
13.5	-14.6	.07	-11.4	-9.3	2.70	-0.3
14.0	-18.4	.30	-5.1	-5.4	3.61	0.7
14.5	-20.3	.00	-24.7	-5.3	2.33	-0.8
15.0	-19.5	.00	-21.3	-9.0	2.92	0.0

TSC S-64 #50: FLYOVER, 60 KT., 500 FT.

TIME	BRITISH			FRENCH		
	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE COEF (DB)	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE CORR (DB)
0.5	-16.6	.13	-8.9	-10.6	2.80	-0.2
1.0	-15.6	.31	-5.0	-11.4	2.09	-1.0
1.5	-15.7	.43	-3.7	-10.5	2.56	-0.5
2.0	-15.8	.47	-3.3	-10.2	2.59	-0.5
2.5	-15.5	.27	-5.6	-10.8	2.61	-0.4
3.0	-15.7	.29	-5.3	-9.9	2.92	0.0
3.5	-16.0	.30	-5.2	-10.7	2.14	-1.0
4.0	-16.3	.10	-9.6	-10.6	2.86	-0.2
4.5	-16.0	.16	-7.7	-10.2	2.23	-0.9
5.0	-16.1	.17	-7.7	-9.8	2.62	-0.4
5.5	-13.9	.77	-1.1	-8.9	2.56	-0.5
6.0	-11.7	1.10	0.4	-8.8	2.17	-0.9
6.5	-13.4	1.95	2.9	-7.3	2.37	-0.7
7.0	-13.8	1.36	1.4	-8.7	2.36	-0.7
7.5	-12.5	1.27	1.0	-7.8	2.15	-1.0
8.0	-13.6	.63	-2.0	-7.4	2.61	-0.4
8.5	-12.9	.35	-4.5	-7.4	2.38	-0.7
9.0	-11.7	1.39	1.4	-7.1	2.11	-1.0
9.5	-9.3	2.59	4.1	-6.8	2.35	-0.7
10.0	-8.5	2.41	3.8	-5.5	2.22	-0.9
10.5	-7.8	5.29	7.2	-5.5	2.17	-0.9
11.0	-7.0	2.07	3.2	-4.4	2.60	-0.4
11.5	-4.5	2.08	3.2	-3.3	2.54	-0.5
12.0	-2.6	2.19	3.4	-2.3	2.58	-0.5
12.5	0.0	2.54	4.1	0.0	3.40	0.5
13.0	-1.1	2.31	3.6	-0.9	2.61	-0.4
13.5	-1.2	3.64	5.6	-1.2	3.76	0.9
14.0	-0.2	.89	-0.5	0.0	2.82	-0.2
14.5	-2.7	.14	-8.5	-2.4	2.74	-0.3
15.0	-3.4	.14	-8.5	-3.7	2.63	-0.4
15.5	-3.0	.00	-12.1	-3.5	2.59	-0.5
16.0	-1.2	.00	-15.5	-2.0	2.76	-0.3
16.5	-0.9	.00	-14.7	-2.0	2.58	-0.5
17.0	-2.0	.00	-14.0	-3.1	2.62	-0.4
17.5	-2.2	.00	-14.6	-4.1	2.83	-0.2
18.0	-2.6	.00	-19.6	-3.9	2.75	-0.3
18.5	-3.8	.00	-18.8	-3.1	2.50	-0.6
19.0	-4.2	.00	-20.4	-2.3	2.30	-0.8
19.5	-5.1	.00	-16.8	-3.7	2.16	-0.9
20.0	-6.6	.00	-18.9	-4.1	2.14	-1.0
20.5	-7.5	.00	-21.6	-4.9	2.28	-0.8
21.0	-7.9	.00	-21.3	-6.0	2.47	-0.6
21.5	-7.1	.00	-18.0	-6.4	2.34	-0.7
22.0	-7.5	.00	-20.7	-5.7	2.49	-0.6
22.5	-7.6	.00	-17.7	-7.9	2.53	-0.5
23.0	-7.1	.00	-19.3	-7.5	2.57	-0.5
23.5	-8.1	.00	-17.4	-8.7	2.99	0.0
24.0	-8.1	.00	-18.5	-8.5	2.64	-0.4
24.5	-8.2	.00	-19.7	-9.6	2.75	-0.3
25.0	-8.2	.00	-21.5	-9.6	2.62	-0.4

B-60

TSC S-64 #50: FLYOVER, 60 KT., 500 FT.

TIME	BRITISH			FRENCH		
	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE COEF (DB)	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE CORR (DB)
25.5	-9.4	.00	-19.2	-10.5	2.64	-0.4
26.0	-11.0	.00	-22.8	-11.1	2.93	0.0
26.5	-11.6	.00	-21.2	-11.5	2.63	-0.4
27.0	-12.3	.00	-18.4	-12.4	2.86	0.0
27.5	-12.9	.00	-17.0	-12.7	3.17	0.2
28.0	-14.1	.00	-13.1	-15.1	2.51	-0.6
28.5	-16.9	.00	-17.1	-14.3	2.55	-0.5
29.0	-18.3	.00	-19.6	-16.4	2.67	-0.4
29.5	-18.8	.00	-20.3	-14.6	2.41	-0.7
30.0	-20.2	.00	-21.7	-16.0	2.46	-0.6
30.5	-19.7	.00	-26.0	-15.7	2.62	-0.4

TSC S-64 #51: 6 DEG APRCH. 60 KT. 400 FT.

TIME	BRITISH			FRENCH		
	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE COEF (DB)	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE CORR (DB)
0.5	-19.4	.08	-10.6	-14.0	2.70	-0.3
1.0	-19.4	.00	-14.1	-13.8	2.81	-0.2
1.5	-19.2	.00	-14.1	-13.9	2.82	-0.2
2.0	-18.7	.00	-16.7	-13.9	2.97	0.0
2.5	-18.4	.00	-13.6	-12.7	2.50	-0.6
3.0	-18.0	.00	-12.4	-11.7	2.76	-0.3
3.5	-17.1	.07	-11.1	-13.0	2.62	-0.4
4.0	-16.4	.16	-7.9	-9.8	2.51	-0.6
4.5	-16.9	.15	-8.1	-11.6	3.30	0.4
5.0	-17.7	.20	-6.8	-11.5	3.11	0.1
5.5	-18.2	.19	-7.2	-12.2	2.70	-0.3
6.0	-18.4	.09	-10.0	-12.8	2.38	-0.7
6.5	-18.2	.22	-6.4	-11.7	2.64	-0.4
7.0	-15.9	.90	-0.4	-10.2	2.59	-0.5
7.5	-15.4	1.03	0.1	-10.2	2.43	-0.6
8.0	-13.9	1.17	0.7	-9.9	2.18	-0.9
8.5	-13.0	1.23	0.9	-8.9	2.68	-0.4
9.0	-11.8	1.14	0.6	-8.9	2.58	-0.5
9.5	-10.4	1.44	1.6	-7.9	2.41	-0.7
10.0	-9.1	1.10	0.4	-7.6	2.69	-0.4
10.5	-7.9	2.12	3.3	-7.4	2.45	-0.6
11.0	-6.4	3.33	5.2	-5.7	2.64	-0.4
11.5	-5.7	2.93	4.7	-5.5	2.49	-0.6
12.0	-5.8	6.24	8.0	-4.8	2.33	-0.8
12.5	-7.2	4.38	6.4	-4.7	2.30	-0.8
13.0	-6.6	2.21	3.5	-4.0	2.36	-0.7
13.5	-4.3	1.65	2.2	-3.1	2.16	-1.0
14.0	-2.2	2.78	4.4	-1.9	2.48	-0.6
14.5	-1.5	1.68	2.3	-1.2	2.76	-0.3
15.0	-0.8	2.54	4.0	-0.3	2.80	-0.2
15.5	-0.7	1.41	1.5	-1.0	3.08	0.1
16.0	0.0	.73	-1.4	0.0	2.78	-0.2
16.5	-0.7	.50	-3.0	-0.7	2.80	-0.2
17.0	-1.0	.28	-5.4	-0.7	2.94	0.0
17.5	-0.8	.22	-6.5	-1.3	2.92	0.0
18.0	-1.5	.14	-8.4	-0.9	2.74	-0.3
18.5	-1.9	.00	-14.4	-0.7	2.64	-0.4
19.0	-3.1	.00	-12.8	-0.7	2.40	-0.7
19.5	-3.4	.08	-10.8	-0.8	2.31	-0.8
20.0	-5.1	.25	-5.9	-0.7	2.17	-0.9
20.5	-6.3	.20	-6.9	-2.7	2.09	-1.0
21.0	-6.4	.39	-4.1	-4.0	2.22	-0.9
21.5	-6.6	.53	-2.7	-4.4	2.56	-0.5
22.0	-5.7	1.87	2.7	-4.8	2.45	-0.6
22.5	-5.9	1.53	1.9	-6.0	2.42	-0.7
23.0	-7.1	.64	-1.9	-7.3	2.47	-0.6
23.5	-9.3	.50	-3.0	-8.9	2.51	-0.6
24.0	-9.1	.27	-5.6	-8.6	2.54	-0.5
24.5	-9.7	.31	-5.1	-10.2	2.90	0.0
25.0	-13.2	.32	-4.9	-10.1	2.40	-0.7



TSC S-64 #51: 6 DEG APRCH. 60 KT, 400 FT.

TIME	BRITISH			FRENCH		
	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE COEF (DB)	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE CORR (DB)
25.5	-14.9	.06	-11.8	-12.0	2.32	-0.8
26.0	-14.9	.18	-7.4	-12.1	2.56	-0.5
26.5	-15.0	.00	-15.0	-13.8	2.72	-0.3
27.0	-14.5	.00	-18.7	-12.9	2.96	0.0
27.5	-16.0	.00	-22.8	-13.4	2.52	-0.5
28.0	-16.0	.00	-13.1	-13.7	3.02	0.0
28.5	-15.5	.16	-7.9	-13.4	2.80	-0.2
29.0	-15.4	.70	-1.5	-14.1	2.88	0.0

TSC S-64 #67: FLYOVER 95 KT., 500 FT.

TIME	BRITISH			FRENCH		
	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE COEF (DB)	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE CORR (DB)
0.5	-8.6	.00	-18.7	-2.8	1.92	-1.2
1.0	-8.7	.00	-16.8	-1.2	1.92	-1.2
1.5	-6.1	.00	-13.2	-0.5	2.03	-1.1
2.0	-3.3	.00	-18.2	0.0	2.01	-1.1
2.5	-2.9	.00	-16.5	-0.6	2.18	-0.9
3.0	-1.1	.00	-16.5	-1.4	2.48	-0.6
3.5	-0.8	.00	-16.4	-2.6	2.53	-0.5
4.0	0.0	.00	-18.4	-4.0	2.66	-0.4
4.5	-0.5	.00	-21.4	-4.8	2.85	-0.2
5.0	-1.3	.00	-15.9	-5.5	2.99	0.0
5.5	-3.1	.00	-13.0	-6.1	2.75	-0.3
6.0	-4.4	.00	-14.9	-8.3	2.66	-0.4
6.5	-5.5	.00	-18.9	-9.8	2.86	0.0
7.0	-7.3	.00	-15.7	-10.6	2.70	-0.3
7.5	-7.4	.00	-19.7	-10.8	2.91	0.0
8.0	-6.6	.00	-20.8	-10.9	2.89	0.0
8.5	-6.9	.00	-17.0	-12.3	2.71	-0.3
9.0	-8.9	.00	-17.1	-11.7	2.66	-0.4
9.5	-9.9	.00	-20.3	-12.7	3.19	0.2
10.0	-9.9	.00	-20.3	-12.0	3.00	0.0
10.5	-10.5	.00	-19.3	-13.4	3.05	0.1
11.0	-11.6	.00	-22.1	-13.9	2.71	-0.3
11.5	-13.4	.00	-19.9	-14.4	2.89	0.0
12.0	-14.0	.00	-22.9	-14.6	2.66	-0.4
12.5	-14.5	.00	-25.2	-14.7	3.11	0.1
13.0	-13.8	.00	-20.1	-14.5	2.67	-0.4
13.5	-13.6	.00	-17.0	-14.1	2.87	0.0

TSC S-64 #74: 6 DEG. APRCH., 60 KT., 400 FT.

TIME	BRITISH			FRENCH		
	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE COEF (DB)	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE CORR (DB)
0.5	-4.9	.46	-3.4	-7.5	2.81	-0.2
1.0	-4.9	.21	-6.6	-6.7	2.14	-1.0
1.5	-7.0	.09	-10.3	-6.1	2.70	-0.3
2.0	-8.3	.62	-2.0	-5.8	1.82	-1.3
2.5	-9.0	.24	-6.0	-5.5	2.30	-0.8
3.0	-8.6	.41	-3.8	-5.3	2.05	-1.1
3.5	-7.0	.24	-6.2	-5.4	2.52	-0.5
4.0	-6.3	.84	-0.7	-4.8	2.19	-0.9
4.5	-6.6	.34	-4.7	-4.7	2.52	-0.5
5.0	-5.9	.29	-5.3	-4.0	2.28	-0.8
5.5	-5.2	.62	-2.0	-3.8	2.15	-1.0
6.0	-4.0	.56	-2.5	-3.0	2.45	-0.6
6.5	-2.2	.79	-1.0	-2.5	2.55	-0.5
7.0	-1.2	1.09	0.4	-1.9	2.26	-0.8
7.5	0.0	.78	-1.1	-0.9	2.12	-1.0
8.0	-0.9	.27	-5.5	-1.0	2.00	-1.1
8.5	-1.2	.34	-4.6	-0.6	1.92	-1.2
9.0	-0.5	.29	-5.3	0.0	2.01	-1.1
9.5	0.0	.29	-5.4	0.0	2.43	-0.6
10.0	-0.5	.14	-8.3	-1.1	2.64	-0.4
10.5	-1.3	.06	-12.0	-1.8	3.14	0.2
11.0	-1.4	.00	-12.8	-3.4	3.29	0.3
11.5	-1.8	.00	-18.1	-3.6	3.01	0.0
12.0	-2.5	.00	-14.1	-4.1	2.82	-0.2
12.5	-1.7	.00	-15.6	-4.2	2.73	-0.3
13.0	-1.2	.17	-7.6	-3.9	2.98	0.0
13.5	-1.5	.10	-9.7	-4.4	3.04	0.0
14.0	-2.1	.10	-9.6	-5.3	3.00	0.0
14.5	-4.0	.00	-13.7	-6.0	2.55	-0.5
15.0	-5.5	.00	-16.0	-7.1	2.40	-0.7
15.5	-6.1	.39	-4.0	-7.7	2.69	-0.3
16.0	-5.8	3.48	5.4	-7.7	3.08	0.1
16.5	-6.4	3.48	5.4	-8.5	2.81	-0.2
17.0	-7.7	.30	-5.1	-10.1	2.29	-0.8
17.5	-10.0	.21	-6.6	-10.8	2.77	-0.3
18.0	-12.6	.00	-15.9	-12.0	2.34	-0.7
18.5	-12.6	.00	-18.1	-12.0	2.87	0.0
19.0	-11.7	.06	-12.0	-12.3	2.67	-0.4
19.5	-10.6	.56	-2.5	-12.7	2.96	0.0
20.0	-10.8	.00	-13.9	-13.5	3.03	0.0
20.5	-12.0	.08	-10.8	-13.9	2.91	0.0

TSC S-64 #78: FLYOVER, 95 KT., 500 FT.

TIME	BRITISH			FRENCH		
	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE COEF (DB)	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE CORR (DB)
0.5	-6.4	.22	-6.5	-3.9	2.41	-0.7
1.0	-0.6	.43	-3.6	-2.5	2.23	-0.9
1.5	-1.8	.09	-10.4	-2.2	2.47	-0.6
2.0	-1.4	.00	-13.8	-2.0	2.18	-0.9
2.5	-0.3	.08	-10.7	-1.2	2.39	-0.7
3.0	0.0	.00	-16.1	-0.5	2.32	-0.8
3.5	-0.5	.00	-17.7	0.0	2.46	-0.6
4.0	-1.6	.00	-17.5	-1.0	2.28	-0.8
4.5	-2.2	.00	-17.7	-3.3	2.45	-0.6
5.0	-3.0	.00	-17.7	-6.1	2.57	-0.5
5.5	-3.7	.00	-21.8	-8.7	2.93	0.0
6.0	-5.1	.00	-17.1	-12.9	2.90	0.0
6.5	-6.6	.00	-18.3	-12.8	3.06	0.1
7.0	-7.2	.00	-19.9	-12.5	2.81	-0.2
7.5	-8.3	.00	-22.9	-13.4	2.70	-0.3
8.0	-9.0	.00	-18.9	-13.5	2.99	0.0
8.5	-9.3	.00	-20.2	-13.6	2.74	-0.3
9.0	-10.4	.00	-12.4	-14.7	3.00	0.0
9.5	-12.4	.00	-18.8	-14.9	2.97	0.0
10.0	-11.0	.00	-17.1	-14.4	3.01	0.0
10.5	-10.9	.00	-17.0	-15.0	2.75	-0.3
11.0	-11.9	.13	-8.5	-16.2	2.69	-0.4
11.5	-14.6	.00	-19.1	-17.0	2.80	-0.2
12.0	-13.7	.00	-13.0	-16.9	3.30	0.3
12.5	-18.0	.00	-16.4	-19.4	2.71	-0.3
13.0	-20.0	.00	-20.5	-19.3	3.20	0.2

TSC CH-47C #12: 6 DEG. APRCH., 60 KT., 400 FT.

TIME	PEAK SPL	TIME	PEAK SPL	TIME	PEAK SPL	TIME	PEAK SPL
0.5	89.3	25.5	98.3	50.5	106.8		
1.0	84.1	26.0	89.3	51.0	107.7		
1.5	87.6	26.5	88.8	51.5	107.3		
2.0	89.3	27.0	91.4	52.0	105.6		
2.5	97.6	27.5	89.3				
3.0	91.5	28.0	90.2				
3.5	90.7	28.5	93.4				
4.0	90.2	29.0	93.7				
4.5	92.0	29.5	94.3				
5.0	92.2	30.0	93.0				
5.5	90.9	30.5	98.0				
6.0	92.0	31.0	96.6				
6.5	93.3	31.5	96.3				
7.0	98.8	32.0	97.3				
7.5	97.6	32.5	98.3				
8.0	98.0	33.0	98.1				
8.5	97.6	33.5	98.1				
9.0	97.5	34.0	98.3				
9.5	92.2	34.5	97.8				
10.0	97.5	35.0	102.2				
10.5	97.5	35.5	100.9				
11.0	91.8	36.0	102.3				
11.5	90.2	36.5	102.7				
12.0	90.6	37.0	101.5				
12.5	88.0	37.5	101.5				
13.0	88.3	38.0	103.8				
13.5	91.8	38.5	104.3				
14.0	91.2	39.0	103.8				
14.5	98.3	39.5	103.3				
15.0	98.8	40.0	106.0				
15.5	90.2	40.5	112.3				
16.0	90.9	41.0	110.9				
16.5	89.3	41.5	105.4				
17.0	91.5	42.0	101.8				
17.5	92.1	42.5	103.4				
18.0	88.3	43.0	106.0				
18.5	88.9	43.5	108.6				
19.0	90.2	44.0	107.1				
19.5	90.9	44.5	108.7				
20.0	96.5	45.0	107.6				
20.5	100.6	45.5	110.8				
21.0	99.4	46.0	110.3				
21.5	96.2	46.5	105.4				
22.0	98.0	47.0	106.8				
22.5	98.3	47.5	109.5				
23.0	90.2	48.0	108.9				
23.5	90.2	48.5	111.1				
24.0	92.0	49.0	110.5				
24.5	91.2	49.5	109.7				
25.0	90.9	50.0	110.3				

TSC CH-47C #18: FLYOVER, 60 KT., 500 FT.

TIME	PEAK SPL	TIME	PEAK SPL	TIME	PEAK SPL	TIME	PEAK SPL
0.5	88.0	25.5	102.0				
1.0	98.8	26.0	100.2				
1.5	97.5	26.5	97.1				
2.0	93.5	27.0	103.0				
2.5	93.4	27.5	103.8				
3.0	97.3	28.0	104.7				
3.5	94.5	28.5	103.1				
4.0	99.6	29.0	105.6				
4.5	101.4	29.5	102.6				
5.0	103.0	30.0	102.0				
5.5	101.8	30.5	103.9				
6.0	104.8	31.0	102.4				
6.5	106.1	31.5	103.8				
7.0	103.2	32.0	104.3				
7.5	104.1	32.5	101.2				
8.0	104.1	33.0	99.2				
8.5	104.4	33.5	105.6				
9.0	102.4	34.0	108.7				
9.5	99.5	34.5	101.4				
10.0	98.1	35.0	102.7				
10.5	99.3	35.5	104.8				
11.0	97.0	36.0	107.3				
11.5	94.8	36.5	107.0				
12.0	99.3	37.0	108.6				
12.5	101.2	37.5	109.9				
13.0	99.3	38.0	108.5				
13.5	96.5	38.5	106.1				
14.0	94.6	39.0	110.3				
14.5	94.5	39.5	113.3				
15.0	95.2	40.0	105.4				
15.5	100.0	40.5	106.9				
16.0	96.3	41.0	112.3				
16.5	99.8	41.5	110.0				
17.0	102.0	42.0	105.2				
17.5	105.8	42.5	103.3				
18.0	104.3	43.0	104.3				
18.5	106.1	43.5	101.8				
19.0	104.3	44.0	101.4				
19.5	100.2	44.5	101.5				
20.0	98.8	45.0	100.8				
20.5	98.8	45.5	100.9				
21.0	108.2	46.0	98.4				
21.5	110.3	46.5	99.3				
22.0	103.3	47.0	100.2				
22.5	104.0	47.5	98.0				
23.0	99.3	48.0	99.3				
23.5	97.5	48.5	98.3				
24.0	102.7	49.0	92.7				
24.5	101.9	49.5	92.7				
25.0	103.8						



TSC CH-47C #20: 9 DEG. APRCH. , 60 KT. , 400 FT.

TIME	PEAK SPL	TIME	PEAK SPL	TIME	PEAK SPL	TIME	PEAK SPL
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0.5	98.3	25.5	109.4				
1.0	98.3	26.0	108.9				
1.5	93.0	26.5	109.5				
2.0	91.1	27.0	110.4				
2.5	91.2	27.5	110.3				
3.0	90.9	28.0	110.4				
3.5	86.6	28.5	108.0				
4.0	89.4	29.0	104.5				
4.5	92.2	29.5	104.3				
5.0	91.8	30.0	103.5				
5.5	90.0	30.5	105.1				
6.0	92.0	31.0	102.1				
6.5	98.0	31.5	103.4				
7.0	93.3	32.0	101.8				
7.5	97.6	32.5	98.3				
8.0	99.3	33.0	98.0				
8.5	98.8	33.5	97.6				
9.0	98.8	34.0	96.9				
9.5	95.0	34.5	96.8				
10.0	96.6	35.0	99.3				
10.5	98.3	35.5	98.1				
11.0	97.6	36.0	92.7				
11.5	96.3	36.5	97.3				
12.0	98.0	37.0	91.8				
12.5	100.2	37.5	90.6				
13.0	98.3	38.0	88.8				
13.5	99.3	38.5	87.5				
14.0	101.2						
14.5	102.1						
15.0	102.3						
15.5	101.2						
16.0	99.7						
16.5	102.7						
17.0	103.4						
17.5	100.6						
18.0	101.2						
18.5	102.1						
19.0	100.6						
19.5	102.7						
20.0	103.3						
20.5	103.0						
21.0	103.3						
21.5	103.5						
22.0	102.3						
22.5	104.3						
23.0	106.3						
23.5	105.5						
24.0	107.8						
24.5	107.6						
25.0	107.6						

TSC CH-47C #23: FLYOVER, 100 KT., 500 FT.

TIME	PEAK SPL	TIME	PEAK SPL	TIME	PEAK SPL	TIME	PEAK SPL
0.5	88.0	25.5	92.2				
1.0	83.5	26.0	92.7				
1.5	83.8	26.5	94.4				
2.0	84.5	27.0	93.1				
2.5	90.2	27.5	96.0				
3.0	88.3	28.0	94.4				
3.5	86.0	28.5	94.7				
4.0	85.8	29.0	93.3				
4.5	86.2	29.5	94.8				
5.0	89.3	30.0	94.5				
5.5	88.3	30.5	94.8				
6.0	86.6	31.0	97.8				
6.5	89.3	31.5	95.3				
7.0	83.5	32.0	95.0				
7.5	88.3	32.5	95.6				
8.0	88.1	33.0	95.4				
8.5	84.5	33.5	95.2				
9.0	88.3	34.0	96.3				
9.5	84.3	34.5	99.4				
10.0	85.9	35.0	96.9				
10.5	88.3	35.5	96.7				
11.0	86.3	36.0	99.0				
11.5	88.3	36.5	98.5				
12.0	90.6	37.0	96.3				
12.5	88.8	37.5	95.2				
13.0	89.7	38.0	93.0				
13.5	88.5	38.5	93.6				
14.0	89.1	39.0	93.3				
14.5	91.5	39.5	93.0				
15.0	90.9	40.0	92.4				
15.5	91.8	40.5	91.2				
16.0	92.0	41.0	89.7				
16.5	91.8	41.5	88.3				
17.0	92.1	42.0	88.1				
17.5	91.0	42.5	89.4				
18.0	92.1	43.0	90.6				
18.5	92.7	43.5	90.2				
19.0	90.2	44.0	87.3				
19.5	91.5	44.5	90.0				
20.0	90.2	45.0	91.0				
20.5	89.3	45.5	89.3				
21.0	92.0	46.0	83.8				
21.5	90.9	46.5	85.0				
22.0	92.1						
22.5	95.8						
23.0	92.4						
23.5	90.7						
24.0	92.0						
24.5	90.9						
25.0	93.3						

TSC CH-47C #24: FLYOVER, 141 KT., 500 FT.

TIME	PEAK SPL	TIME	PEAK SPL	TIME	PEAK SPL	TIME	PEAK SPL
0.5	87.5	25.5	98.2				
1.0	84.3	26.0	99.0				
1.5	83.7	26.5	97.6				
2.0	84.3	27.0	99.5				
2.5	84.5	27.5	100.5				
3.0	88.0	28.0	102.5				
3.5	83.7	28.5	101.1				
4.0	84.3	29.0	100.8				
4.5	85.2	29.5	101.8				
5.0	88.3	30.0	101.0				
5.5	85.1	30.5	98.4				
6.0	85.1	31.0	99.5				
6.5	89.4	31.5	97.0				
7.0	85.9	32.0	95.5				
7.5	90.6	32.5	93.7				
8.0	88.2	33.0	92.4				
8.5	88.4	33.5	91.5				
9.0	89.4	34.0	91.4				
9.5	88.7	34.5	89.3				
10.0	91.0	35.0	89.7				
10.5	89.7	35.5	88.8				
11.0	91.4	36.0	88.8				
11.5	90.7						
12.0	93.3						
12.5	96.1						
13.0	99.4						
13.5	103.9						
14.0	103.7						
14.5	105.3						
15.0	105.4						
15.5	106.6						
16.0	107.1						
16.5	107.2						
17.0	107.4						
17.5	106.7						
18.0	104.2						
18.5	102.5						
19.0	101.6						
19.5	102.3						
20.0	100.0						
20.5	99.2						
21.0	100.2						
21.5	101.0						
22.0	101.9						
22.5	101.2						
23.0	101.3						
23.5	101.6						
24.0	100.7						
24.5	99.8						
25.0	99.5						

TSC CH-47C #27: FLYOVER, 141 KT., 500 FT.

TIME	PEAK SPL	TIME	PEAK SPL	TIME	PEAK SPL	TIME	PEAK SPL
0.5	84.0	25.5	92.3				
1.0	84.8	26.0	97.5				
1.5	83.8						
2.0	88.3						
2.5	85.3						
3.0	90.1						
3.5	89.4						
4.0	86.8						
4.5	88.3						
5.0	91.2						
5.5	90.2						
6.0	97.5						
6.5	99.3						
7.0	99.4						
7.5	98.3						
8.0	98.3						
8.5	99.3						
9.0	102.4						
9.5	106.6						
10.0	115.1						
10.5	114.3						
11.0	114.3						
11.5	111.0						
12.0	115.1						
12.5	107.3						
13.0	115.0						
13.5	115.4						
14.0	114.6						
14.5	112.5						
15.0	112.9						
15.5	104.8						
16.0	102.8						
16.5	106.9						
17.0	103.7						
17.5	103.1						
18.0	104.5						
18.5	106.3						
19.0	102.0						
19.5	102.7						
20.0	104.1						
20.5	102.8						
21.0	103.8						
21.5	101.8						
22.0	102.1						
22.5	99.3						
23.0	95.9						
23.5	93.6						
24.0	97.5						
24.5	92.7						
25.0	97.5						

TSC CH-47C #28: FLYOVER 150 KT., 500 FT.

TIME	PEAK SPL	TIME	PEAK SPL	TIME	PEAK SPL	TIME	PEAK SPL
----	-----	----	-----	----	-----	----	-----
0.5	89.3						
1.0	88.3						
1.5	86.9						
2.0	87.6						
2.5	88.2						
3.0	89.7						
3.5	91.8						
4.0	93.7						
4.5	94.8						
5.0	100.2						
5.5	104.4						
6.0	107.3						
6.5	107.0						
7.0	110.0						
7.5	114.5						
8.0	114.9						
8.5	111.8						
9.0	111.3						
9.5	111.9						
10.0	112.8						
10.5	110.3						
11.0	110.6						
11.5	113.5						
12.0	108.7						
12.5	107.0						
13.0	103.5						
13.5	104.4						
14.0	104.1						
14.5	106.1						
15.0	104.8						
15.5	103.7						
16.0	103.7						
16.5	102.1						
17.0	103.7						
17.5	101.1						
18.0	102.4						
18.5	97.4						
19.0	96.3						
19.5	98.0						
20.0	95.8						
20.5	92.1						
21.0	93.7						
21.5	102.0						
22.0	98.8						
22.5	88.8						
23.0	101.5						
23.5	101.3						
24.0	88.7						

TSC CH-47C #29: FLYOVER, 150 KT., 500 FT.

TIME	PEAK SPL	TIME	PEAK SPL	TIME	PEAK SPL	TIME	PEAK SPL
0.5	90.2	25.5	94.0				
1.0	90.2	26.0	94.8				
1.5	90.2	26.5	98.3				
2.0	87.6	27.0	102.7				
2.5	89.3	27.5	98.3				
3.0	87.6	28.0	101.5				
3.5	89.7	28.5	99.3				
4.0	88.7	29.0	97.3				
4.5	89.3						
5.0	88.4						
5.5	88.3						
6.0	89.3						
6.5	91.8						
7.0	91.0						
7.5	98.0						
8.0	98.4						
8.5	101.5						
9.0	99.3						
9.5	102.7						
10.0	106.9						
10.5	109.3						
11.0	107.6						
11.5	109.2						
12.0	114.6						
12.5	117.5						
13.0	115.4						
13.5	116.7						
14.0	117.6						
14.5	116.9						
15.0	115.2						
15.5	119.7						
16.0	114.8						
16.5	116.9						
17.0	111.0						
17.5	106.3						
18.0	105.8						
18.5	103.7						
19.0	103.0						
19.5	105.4						
20.0	106.6						
20.5	106.3						
21.0	103.5						
21.5	105.5						
22.0	103.7						
22.5	101.8						
23.0	105.5						
23.5	97.7						
24.0	99.4						
24.5	98.3						
25.0	99.4						



TSC CH-47C #35: 3 DEG. APRDH., 60 KT., 400 FT.

TIME	PEAK SPL	TIME	PEAK SPL	TIME	PEAK SPL	TIME	PEAK SPL
-----	-----	-----	-----	-----	-----	-----	-----
0.5	97.4	25.5	104.1				
1.0	97.1	26.0	105.9				
1.5	95.0	26.5	104.6				
2.0	95.6	27.0	107.4				
2.5	94.3	27.5	107.1				
3.0	94.3	28.0	113.7				
3.5	97.6	28.5	116.2				
4.0	97.3	29.0	112.7				
4.5	91.8	29.5	114.0				
5.0	90.2	30.0	116.3				
5.5	97.5	30.5	106.9				
6.0	89.8	31.0	109.5				
6.5	90.2	31.5	114.8				
7.0	90.6	32.0	112.3				
7.5	89.4	32.5	108.1				
8.0	91.6	33.0	109.7				
8.5	97.5	33.5	107.7				
9.0	90.0	34.0	104.8				
9.5	89.3	34.5	102.7				
10.0	92.2	35.0	108.1				
10.5	92.7	35.5	107.7				
11.0	98.3	36.0	107.2				
11.5	90.3	36.5	106.6				
12.0	97.6	37.0	101.8				
12.5	90.3	37.5	104.3				
13.0	94.8	38.0	101.5				
13.5	99.3	38.5	100.9				
14.0	101.2	39.0	101.2				
14.5	98.1	39.5	100.6				
15.0	93.3	40.0	99.3				
15.5	96.5	40.5	90.2				
16.0	98.3	41.0	98.0				
16.5	95.9	41.5	93.0				
17.0	100.3	42.0	98.0				
17.5	99.8	42.5	88.3				
18.0	100.6	43.0	90.6				
18.5	100.0	43.5	88.8				
19.0	100.6	44.0	88.0				
19.5	102.0						
20.0	100.2						
20.5	106.4						
21.0	107.7						
21.5	98.6						
22.0	101.4						
22.5	104.8						
23.0	103.8						
23.5	106.3						
24.0	103.7						
24.5	102.0						
25.0	104.5						

TSC BELL 212 #24: 6 DEG. APRCH., 55 KT., 380 FT.

TIME	PEAK SPL	TIME	PEAK SPL	TIME	PEAK SPL	TIME	PEAK SPL
0.5	89.1	25.5	96.8	50.5	92.2		
1.0	89.4	26.0	97.3	51.0	94.3		
1.5	86.4	26.5	95.6	51.5	94.7		
2.0	89.5	27.0	92.8	52.0	92.1		
2.5	84.3	27.5	93.6	52.5	93.8		
3.0	82.0	28.0	91.8				
3.5	82.3	28.5	90.6				
4.0	82.2	29.0	92.2				
4.5	83.1	29.5	92.5				
5.0	80.7	30.0	97.4				
5.5	83.0	30.5	99.7				
6.0	88.3	31.0	97.3				
6.5	83.8	31.5	93.0				
7.0	88.8	32.0	95.6				
7.5	85.4	32.5	97.1				
8.0	88.8	33.0	99.4				
8.5	82.5	33.5	96.6				
9.0	86.5	34.0	96.0				
9.5	90.9	34.5	100.5				
10.0	92.1	35.0	100.8				
10.5	90.3	35.5	97.6				
11.0	89.8	36.0	99.7				
11.5	88.2	36.5	101.2				
12.0	88.1	37.0	100.4				
12.5	90.9	37.5	105.0				
13.0	90.6	38.0	97.4				
13.5	88.8	38.5	100.0				
14.0	86.3	39.0	103.1				
14.5	88.8	39.5	101.3				
15.0	89.8	40.0	97.0				
15.5	89.8	40.5	97.0				
16.0	92.3	41.0	94.8				
16.5	94.3	41.5	98.3				
17.0	92.0	42.0	99.5				
17.5	90.2	42.5	96.9				
18.0	90.2	43.0	99.5				
18.5	91.8	43.5	97.3				
19.0	91.5	44.0	96.9				
19.5	90.6	44.5	94.3				
20.0	92.1	45.0	94.8				
20.5	92.7	45.5	93.8				
21.0	94.3	46.0	95.2				
21.5	94.1	46.5	93.8				
22.0	94.5	47.0	98.7				
22.5	98.1	47.5	94.4				
23.0	96.8	48.0	94.8				
23.5	92.5	48.5	91.9				
24.0	94.1	49.0	94.5				
24.5	95.6	49.5	93.7				
25.0	97.0	50.0	93.0				

TSC BELL 212 #27: 9 DEG. APRCH., 58 KT., 420 FT.

TIME	PEAK SPL	TIME	PEAK SPL	TIME	PEAK SPL	TIME	PEAK SPL
0.5	91.2	25.5	99.7				
1.0	88.7	26.0	101.7				
1.5	84.8	26.5	98.1				
2.0	79.4	27.0	98.9				
2.5	83.1	27.5	99.1				
3.0	83.8	28.0	99.0				
3.5	88.4	28.5	97.6				
4.0	88.7	29.0	95.9				
4.5	90.2	29.5	95.6				
5.0	91.5	30.0	96.3				
5.5	93.8	30.5	94.1				
6.0	91.8	31.0	96.0				
6.5	94.3	31.5	93.8				
7.0	95.2	32.0	95.2				
7.5	95.2	32.5	95.0				
8.0	94.4	33.0	95.2				
8.5	93.7	33.5	92.7				
9.0	92.2	34.0	97.5				
9.5	92.4	34.5	96.8				
10.0	92.7	35.0	96.6				
10.5	95.6	35.5	96.5				
11.0	94.1	36.0	97.3				
11.5	94.4	36.5	97.3				
12.0	96.9	37.0	97.0				
12.5	96.8	37.5	96.3				
13.0	97.6	38.0	95.3				
13.5	96.1	38.5	92.7				
14.0	96.2	39.0	93.8				
14.5	95.8	39.5	94.1				
15.0	95.2	40.0	92.1				
15.5	94.1	40.5	87.6				
16.0	96.0	41.0	91.8				
16.5	99.2	41.5	95.5				
17.0	98.6	42.0	92.5				
17.5	99.2	42.5	88.1				
18.0	97.0	43.0	88.3				
18.5	97.6	43.5	89.5				
19.0	96.9	44.0	91.5				
19.5	98.0	44.5	88.0				
20.0	98.9						
20.5	97.7						
21.0	97.7						
21.5	96.8						
22.0	98.0						
22.5	98.2						
23.0	97.9						
23.5	99.0						
24.0	99.7						
24.5	100.4						
25.0	100.2						

TSC BELL 212 #311: FLYOVER, 61 KT., 500 FT.

TIME	PEAK SPL	TIME	PEAK SPL	TIME	PEAK SPL	TIME	PEAK SPL
0.5	87.6	25.5	85.8				
1.0	89.1	26.0	88.1				
1.5	88.4	26.5	86.8				
2.0	84.8	27.0	88.0				
2.5	85.0	27.5	88.0				
3.0	82.5	28.0	88.3				
3.5	86.0	28.5	86.3				
4.0	87.4	29.0	88.2				
4.5	91.1	29.5	88.1				
5.0	93.9	30.0	84.3				
5.5	91.3	30.5	86.1				
6.0	90.5	31.0	84.4				
6.5	91.1	31.5	84.3				
7.0	92.6	32.0	83.3				
7.5	94.9	32.5	83.5				
8.0	97.4	33.0	83.7				
8.5	94.1	33.5	82.0				
9.0	97.5	34.0	81.5				
9.5	96.9	34.5	84.1				
10.0	98.1	35.0	82.7				
10.5	96.3	35.5	80.8				
11.0	96.6	36.0	82.1				
11.5	94.3	36.5	83.0				
12.0	91.1	37.0	81.2				
12.5	90.6	37.5	85.3				
13.0	91.7	38.0	78.3				
13.5	94.7	38.5	72.3				
14.0	93.9	39.0	75.0				
14.5	93.0	39.5	77.3				
15.0	94.9						
15.5	92.5						
16.0	94.4						
16.5	94.2						
17.0	94.2						
17.5	91.9						
18.0	92.3						
18.5	92.1						
19.0	92.6						
19.5	94.9						
20.0	93.4						
20.5	91.1						
21.0	92.9						
21.5	91.3						
22.0	93.5						
22.5	93.7						
23.0	90.6						
23.5	90.9						
24.0	90.8						
24.5	88.3						
25.0	88.9						

TSC BELL 212 #32: FLYOVER , 96 KT., 500 FT.

TIME	PEAK SPL	TIME	PEAK SPL	TIME	PEAK SPL	TIME	PEAK SPL
0.5	89.5						
1.0	90.3						
1.5	89.9						
2.0	89.5						
2.5	88.7						
3.0	91.0						
3.5	91.4						
4.0	92.7						
4.5	96.5						
5.0	99.6						
5.5	100.1						
6.0	101.2						
6.5	99.9						
7.0	97.1						
7.5	98.1						
8.0	98.9						
8.5	98.6						
9.0	97.4						
9.5	95.5						
10.0	92.7						
10.5	93.1						
11.0	91.1						
11.5	88.9						
12.0	87.0						
12.5	88.7						
13.0	87.3						
13.5	87.4						
14.0	87.6						
14.5	87.6						
15.0	86.5						
15.5	86.1						
16.0	86.0						
16.5	86.0						
17.0	82.7						
17.5	80.2						
18.0	79.5						
18.5	81.8						
19.0	83.7						
19.5	78.7						
20.0	79.3						
20.5	82.1						
21.0	79.5						

TSC BELL 212 #36: FLYOVER, 105 KT., 450 FT.

TIME	PEAK SPL	TIME	PEAK SPL	TIME	PEAK SPL	TIME	PEAK SPL
0.5	92.3	25.5	81.8				
1.0	93.9	26.0	81.4				
1.5	94.9	26.5	82.0				
2.0	95.1						
2.5	94.0						
3.0	91.3						
3.5	91.6						
4.0	91.7						
4.5	92.8						
5.0	92.3						
5.5	90.9						
6.0	91.8						
6.5	93.8						
7.0	93.5						
7.5	94.0						
8.0	92.8						
8.5	93.4						
9.0	93.2						
9.5	92.1						
10.0	92.8						
10.5	94.0						
11.0	94.5						
11.5	99.4						
12.0	98.9						
12.5	98.2						
13.0	92.6						
13.5	94.5						
14.0	94.7						
14.5	98.5						
15.0	101.6						
15.5	96.6						
16.0	98.3						
16.5	96.2						
17.0	95.9						
17.5	94.1						
18.0	91.7						
18.5	90.7						
19.0	88.7						
19.5	90.6						
20.0	89.5						
20.5	89.6						
21.0	89.6						
21.5	89.4						
22.0	93.7						
22.5	89.4						
23.0	92.7						
23.5	83.3						
24.0	87.3						
24.5	89.6						
25.0	90.2						



TSC BELL 212 #37: FLYOVER , 115 KT. , 500 FT.

TIME	PEAK SPL	TIME	PEAK SPL	TIME	PEAK SPL	TIME	PEAK SPL
0.5	85.9						
1.0	93.0						
1.5	94.5						
2.0	95.6						
2.5	96.3						
3.0	100.3						
3.5	101.3						
4.0	101.5						
4.5	96.9						
5.0	96.7						
5.5	96.8						
6.0	97.0						
6.5	97.3						
7.0	97.3						
7.5	99.4						
8.0	95.8						
8.5	98.0						
9.0	98.4						
9.5	98.5						
10.0	98.7						
10.5	103.8						
11.0	103.5						
11.5	106.7						
12.0	99.8						
12.5	103.3						
13.0	99.2						
13.5	98.9						
14.0	99.4						
14.5	100.0						
15.0	100.3						
15.5	99.5						
16.0	93.0						
16.5	93.6						
17.0	89.7						
17.5	89.8						
18.0	91.5						
18.5	88.1						
19.0	88.4						
19.5	90.2						
20.0	85.9						
20.5	85.2						
21.0	87.3						
21.5	89.3						
22.0	87.6						
22.5	85.0						
23.0	81.3						

TSC BELL 212 #43. 3 DEG. APRCH., 60 KT., 410 FT.

TIME	PEAK SPL	TIME	PEAK SPL	TIME	PEAK SPL	TIME	PEAK SPL
0.5	89.5	25.5	91.9				
1.0	89.5	26.0	90.8				
1.5	86.0	26.5	92.1				
2.0	91.0	27.0	91.5				
2.5	92.0	27.5	91.0				
3.0	95.2	28.0	89.3				
3.5	94.3	28.5	91.8				
4.0	95.0	29.0	89.7				
4.5	95.8	29.5	92.1				
5.0	96.6	30.0	88.3				
5.5	93.1	30.5	91.5				
6.0	95.1	31.0	93.0				
6.5	95.1	31.5	89.5				
7.0	97.1	32.0	88.4				
7.5	100.3	32.5	88.1				
8.0	96.6	33.0	88.1				
8.5	98.3	33.5	82.1				
9.0	95.6						
9.5	93.6						
10.0	96.7						
10.5	94.7						
11.0	94.3						
11.5	101.3						
12.0	102.3						
12.5	97.3						
13.0	102.0						
13.5	97.6						
14.0	101.3						
14.5	98.1						
15.0	100.0						
15.5	99.4						
16.0	104.3						
16.5	103.5						
17.0	102.3						
17.5	99.9						
18.0	101.3						
18.5	97.0						
19.0	98.9						
19.5	96.6						
20.0	96.3						
20.5	92.7						
21.0	93.6						
21.5	94.5						
22.0	94.3						
22.5	93.0						
23.0	91.5						
23.5	92.4						
24.0	91.8						
24.5	89.5						
25.0	89.3						

TSC 300C #34: FLYOVER, 75 MPH, 500 FT.

TIME	PEAK SPL	TIME	PEAK SPL	TIME	PEAK SPL	TIME	PEAK SPL
0.5	81.8	25.5	78.2				
1.0	69.5	26.0	78.0				
1.5	67.7	26.5	76.9				
2.0	67.3	27.0	76.0				
2.5	69.4	27.5	74.9				
3.0	66.5	28.0	74.9				
3.5	69.0	28.5	73.7				
4.0	69.7	29.0	82.0				
4.5	71.8	29.5	72.5				
5.0	70.3	30.0	75.1				
5.5	67.2	30.5	69.4				
6.0	62.0	31.0	70.3				
6.5	66.2	31.5	68.8				
7.0	63.8	32.0	70.1				
7.5	65.2						
8.0	67.3						
8.5	70.5						
9.0	68.8						
9.5	72.6						
10.0	70.8						
10.5	70.2						
11.0	71.1						
11.5	68.8						
12.0	68.5						
12.5	71.1						
13.0	75.7						
13.5	74.1						
14.0	74.7						
14.5	73.7						
15.0	73.5						
15.5	75.8						
16.0	77.5						
16.5	78.5						
17.0	77.6						
17.5	78.2						
18.0	80.6						
18.5	81.4						
19.0	80.9						
19.5	79.7						
20.0	81.1						
20.5	81.0						
21.0	77.6						
21.5	81.2						
22.0	79.0						
22.5	77.4						
23.0	78.8						
23.5	77.9						
24.0	81.8						
24.5	79.2						
25.0	76.6						

TSC 300C #44. 6 DEG. APRCH., 60 MPH, 400 FT.

TIME	PEAK SPL	TIME	PEAK SPL	TIME	PEAK SPL	TIME	PEAK SPL
0.5	77.8	25.5	68.5				
1.0	75.9	26.0	65.8				
1.5	77.2	26.5	70.0				
2.0	72.5	27.0	72.2				
2.5	72.3	27.5	68.9				
3.0	71.1	28.0	64.3				
3.5	70.0	28.5	66.6				
4.0	68.6						
4.5	70.6						
5.0	72.6						
5.5	77.0						
6.0	75.4						
6.5	71.6						
7.0	72.8						
7.5	76.0						
8.0	76.7						
8.5	87.2						
9.0	82.8						
9.5	78.0						
10.0	79.1						
10.5	75.3						
11.0	77.9						
11.5	77.0						
12.0	78.0						
12.5	77.9						
13.0	79.8						
13.5	88.6						
14.0	84.6						
14.5	84.7						
15.0	79.7						
15.5	79.7						
16.0	81.6						
16.5	78.3						
17.0	80.2						
17.5	76.1						
18.0	75.3						
18.5	74.1						
19.0	74.0						
19.5	72.8						
20.0	71.8						
20.5	69.7						
21.0	75.3						
21.5	65.7						
22.0	69.6						
22.5	68.8						
23.0	66.5						
23.5	69.6						
24.0	68.3						
24.5	69.6						
25.0	70.2						

TSC BELL 206L #446: 6 DEG APRCH, 70 MPH, 400 FT.

TIME	PEAK SPL	TIME	PEAK SPL	TIME	PEAK SPL	TIME	PEAK SPL
0.5	68.0	25.5	84.4				
1.0	75.5	26.0	86.3				
1.5	69.1	26.5	84.8				
2.0	69.0	27.0	84.2				
2.5	65.7	27.5	83.7				
3.0	66.8	28.0	82.8				
3.5	69.7	28.5	81.5				
4.0	73.2	29.0	80.6				
4.5	71.3	29.5	80.2				
5.0	66.5	30.0	85.5				
5.5	69.1	30.5	85.4				
6.0	70.6	31.0	85.8				
6.5	68.4	31.5	85.1				
7.0	69.0	32.0	82.3				
7.5	67.6	32.5	78.3				
8.0	68.7	33.0	84.2				
8.5	73.5	33.5	82.2				
9.0	75.2	34.0	80.9				
9.5	73.4	34.5	78.9				
10.0	76.8	35.0	84.1				
10.5	76.2	35.5	85.1				
11.0	74.7	36.0	85.2				
11.5	74.5	36.5	86.4				
12.0	75.5	37.0	86.0				
12.5	86.4	37.5	84.2				
13.0	88.6	38.0	85.5				
13.5	93.5	38.5	85.4				
14.0	89.5	39.0	86.0				
14.5	92.0	39.5	91.0				
15.0	88.4	40.0	75.5				
15.5	96.3	40.5	72.7				
16.0	90.7	41.0	78.7				
16.5	96.5	41.5	78.5				
17.0	86.1	42.0	69.5				
17.5	85.5	42.5	68.6				
18.0	81.6						
18.5	80.3						
19.0	82.7						
19.5	85.4						
20.0	85.1						
20.5	84.8						
21.0	85.9						
21.5	85.5						
22.0	91.3						
22.5	90.8						
23.0	87.9						
23.5	85.1						
24.0	87.6						
24.5	86.6						
25.0	87.1						

TSC BELL 206L #71: FLYOVER, 130 MPH, 560 FT.

TIME	PEAK SPL	TIME	PEAK SPL	TIME	PEAK SPL	TIME	PEAK SPL
0.5	74.3						
1.0	78.3						
1.5	83.3						
2.0	83.7						
2.5	82.4						
3.0	84.4						
3.5	82.9						
4.0	79.4						
4.5	81.5						
5.0	79.3						
5.5	81.3						
6.0	88.9						
6.5	86.2						
7.0	86.3						
7.5	81.3						
8.0	87.9						
8.5	83.7						
9.0	85.6						
9.5	85.0						
10.0	86.4						
10.5	87.3						
11.0	85.2						
11.5	84.5						
12.0	86.0						
12.5	84.7						
13.0	86.6						
13.5	84.4						
14.0	85.2						
14.5	80.6						
15.0	78.5						
15.5	77.6						
16.0	77.7						
16.5	80.9						
17.0	78.1						
17.5	77.8						
18.0	78.3						
18.5	79.6						
19.0	75.8						
19.5	78.0						
20.0	82.1						



TSC BELL 47G #19: 6 DEG APRCH., 60 MPH, 400 FT.

TIME	PEAK SPL	TIME	PEAK SPL	TIME	PEAK SPL	TIME	PEAK SPL
0.5	83.0	25.5	82.6				
1.0	82.5	26.0	79.2				
1.5	83.3	26.5	80.1				
2.0	80.3	27.0	78.5				
2.5	78.4	27.5	80.3				
3.0	77.7	28.0	80.4				
3.5	71.3	28.5	78.1				
4.0	81.8	29.0	79.0				
4.5	78.1	29.5	79.2				
5.0	82.2	30.0	77.5				
5.5	82.2	30.5	77.7				
6.0	84.0	31.0	75.0				
6.5	83.5						
7.0	84.1						
7.5	88.7						
8.0	87.4						
8.5	87.4						
9.0	85.7						
9.5	86.1						
10.0	88.4						
10.5	90.6						
11.0	89.3						
11.5	91.8						
12.0	90.2						
12.5	92.5						
13.0	90.3						
13.5	91.8						
14.0	93.6						
14.5	93.7						
15.0	93.1						
15.5	93.6						
16.0	93.8						
16.5	94.7						
17.0	96.6						
17.5	92.7						
18.0	89.6						
18.5	86.8						
19.0	90.3						
19.5	91.8						
20.0	92.0						
20.5	90.5						
21.0	89.6						
21.5	89.7						
22.0	86.1						
22.5	84.2						
23.0	81.2						
23.5	82.9						
24.0	83.7						
24.5	88.8						
25.0	86.6						

TSC BELL 47G #29: FLYOVER, 68 MPH, 500 FT.

TIME	PEAK SPL	TIME	PEAK SPL	TIME	PEAK SPL	TIME	PEAK SPL
0.5	74.3	25.5	82.3				
1.0	76.5	26.0	83.8				
1.5	76.6	26.5	80.3				
2.0	76.2	27.0	78.7				
2.5	79.2	27.5	81.7				
3.0	78.8	28.0	83.3				
3.5	81.8	28.5	82.3				
4.0	78.5	29.0	80.2				
4.5	81.8	29.5	77.8				
5.0	84.7	30.0	78.1				
5.5	84.5	30.5	79.0				
6.0	86.1	31.0	79.5				
6.5	85.7	31.5	76.0				
7.0	87.7	32.0	76.8				
7.5	89.4	32.5	75.5				
8.0	88.6						
8.5	90.1						
9.0	88.5						
9.5	89.1						
10.0	88.6						
10.5	91.2						
11.0	91.3						
11.5	90.2						
12.0	88.9						
12.5	89.8						
13.0	90.9						
13.5	90.7						
14.0	90.1						
14.5	90.6						
15.0	89.4						
15.5	83.3						
16.0	86.5						
16.5	87.9						
17.0	89.8						
17.5	90.1						
18.0	87.6						
18.5	84.7						
19.0	81.6						
19.5	81.7						
20.0	84.8						
20.5	83.8						
21.0	83.7						
21.5	90.2						
22.0	86.4						
22.5	85.9						
23.0	89.2						
23.5	84.6						
24.0	80.4						
24.5	81.9						
25.0	79.7						

TSC BELL 47G #30: FLYOVER, 75 MPH, 500 FT.

TIME	PEAK SPL	TIME	PEAK SPL	TIME	PEAK SPL	TIME	PEAK SPL
0.5	71.5						
1.0	71.5						
1.5	72.7						
2.0	75.2						
2.5	78.2						
3.0	77.1						
3.5	79.4						
4.0	80.5						
4.5	81.6						
5.0	82.7						
5.5	83.1						
6.0	85.8						
6.5	86.0						
7.0	86.3						
7.5	87.1						
8.0	85.9						
8.5	87.2						
9.0	86.1						
9.5	87.0						
10.0	86.7						
10.5	86.6						
11.0	84.2						
11.5	85.2						
12.0	84.1						
12.5	79.9						
13.0	79.6						
13.5	81.9						
14.0	79.3						
14.5	84.1						

TSC BELL 47G #41: 9 DEG. APRCH., 60 MPH, 400 FT.

TIME	PEAK SPL	TIME	PEAK SPL	TIME	PEAK SPL	TIME	PEAK SPL
0.5	77.4						
1.0	83.3						
1.5	82.2						
2.0	80.4						
2.5	76.4						
3.0	79.6						
3.5	79.2						
4.0	78.7						
4.5	80.9						
5.0	81.1						
5.5	80.7						
6.0	81.1						
6.5	86.2						
7.0	93.7						
7.5	97.4						
8.0	91.1						
8.5	90.3						
9.0	87.4						
9.5	86.7						
10.0	85.8						
10.5	85.4						
11.0	87.5						
11.5	85.7						
12.0	84.7						
12.5	87.4						
13.0	83.8						
13.5	84.8						
14.0	82.5						
14.5	82.0						
15.0	81.9						
15.5	82.4						
16.0	81.8						
16.5	82.0						
17.0	79.7						
17.5	79.6						
18.0	80.5						
18.5	80.2						
19.0	77.3						
19.5	78.0						
20.0	75.7						
20.5	78.6						
21.0	77.8						
21.5	75.8						
22.0	76.0						
22.5	74.4						
23.0	72.5						
23.5	73.9						
24.0	73.6						
24.5	72.7						
25.0	72.0						

TSC 500C #5B: FLYOVER , 70 MPH, 500 FT.

TIME	PEAK SPL	TIME	PEAK SPL	TIME	PEAK SPL	TIME	PEAK SPL
0.5	80.6						
1.0	82.9						
1.5	82.3						
2.0	83.4						
2.5	81.1						
3.0	80.6						
3.5	84.2						
4.0	83.5						
4.5	81.3						
5.0	80.4						
5.5	84.6						
6.0	94.5						
6.5	92.4						
7.0	81.1						
7.5	82.4						
8.0	80.5						
8.5	84.4						
9.0	81.1						
9.5	81.5						
10.0	85.6						
10.5	84.8						
11.0	84.0						
11.5	86.1						
12.0	86.1						
12.5	87.6						
13.0	87.6						
13.5	86.8						
14.0	87.2						
14.5	85.2						
15.0	85.8						
15.5	84.4						
16.0	85.6						
16.5	84.3						
17.0	83.6						
17.5	81.5						
18.0	81.2						
18.5	78.9						
19.0	77.6						
19.5	75.0						
20.0	78.3						
20.5	77.9						
21.0	78.5						
21.5	75.0						
22.0	73.8						
22.5	78.9						
23.0	78.6						
23.5	71.2						

TSC 500C #65: 6 DEG APRCH., 69 MPH, 400 FT.

TIME	PEAK SPL	TIME	PEAK SPL	TIME	PEAK SPL	TIME	PEAK SPL
---	---	---	---	---	---	---	---
0.5	81.0						
1.0	80.6						
1.5	79.3						
2.0	75.8						
2.5	80.4						
3.0	81.9						
3.5	83.5						
4.0	86.9						
4.5	86.5						
5.0	83.4						
5.5	81.7						
6.0	82.5						
6.5	86.5						
7.0	87.7						
7.5	86.1						
8.0	83.6						
8.5	85.4						
9.0	88.0						
9.5	87.3						
10.0	84.4						
10.5	87.2						
11.0	86.8						
11.5	91.6						
12.0	91.6						
12.5	88.1						
13.0	87.9						
13.5	89.9						
14.0	89.3						
14.5	90.1						
15.0	88.0						
15.5	86.0						
16.0	88.5						
16.5	92.7						
17.0	95.4						
17.5	93.4						
18.0	87.3						
18.5	85.4						
19.0	85.7						
19.5	83.6						
20.0	84.8						
20.5	83.5						
21.0	79.5						
21.5	80.7						
22.0	80.3						
22.5	78.5						
23.0	79.7						



TSC 500C #109: FLYOVER, 150 MPH, 500 FT.

TIME	PEAK SPL	TIME	PEAK SPL	TIME	PEAK SPL	TIME	PEAK SPL
---	---	---	---	---	---	---	---
0.5	81.0						
1.0	78.3						
1.5	85.2						
2.0	82.7						
2.5	80.1						
3.0	81.9						
3.5	83.8						
4.0	81.1						
4.5	82.9						
5.0	85.4						
5.5	81.3						
6.0	81.1						
6.5	79.9						
7.0	80.9						
7.5	83.1						
8.0	82.1						
8.5	83.2						
9.0	83.5						
9.5	83.5						
10.0	87.5						
10.5	88.2						
11.0	89.9						
11.5	89.7						
12.0	89.6						
12.5	89.4						
13.0	90.6						
13.5	92.1						
14.0	91.4						
14.5	90.0						
15.0	90.5						
15.5	87.0						
16.0	85.7						
16.5	81.6						
17.0	82.5						
17.5	80.3						
18.0	80.0						
18.5	80.5						
19.0	77.1						
19.5	77.4						
20.0	73.0						

TSC 500 C #110: FLYOVER, 130 MPH, 500 FT.

TIME	PEAK SPL	TIME	PEAK SPL	TIME	PEAK SPL	TIME	PEAK SPL
0.5	79.2						
1.0	74.0						
1.5	77.1						
2.0	77.1						
2.5	80.6						
3.0	81.1						
3.5	78.7						
4.0	81.2						
4.5	81.9						
5.0	82.0						
5.5	79.2						
6.0	78.9						
6.5	78.8						
7.0	78.5						
7.5	78.1						
8.0	76.6						
8.5	77.1						
9.0	81.2						
9.5	82.5						
10.0	82.1						
10.5	83.6						
11.0	82.4						
11.5	82.1						
12.0	83.5						
12.5	83.7						
13.0	84.5						
13.5	85.8						
14.0	84.5						
14.5	83.8						
15.0	87.0						
15.5	87.5						
16.0	87.3						
16.5	87.6						
17.0	87.9						
17.5	90.2						
18.0	89.4						
18.5	91.6						
19.0	90.8						
19.5	87.6						
20.0	86.2						
20.5	85.2						
21.0	83.5						
21.5	82.1						
22.0	81.2						
22.5	79.5						
23.0	77.8						
23.5	78.5						
24.0	75.6						
24.5	78.0						
25.0	73.5						

TSC S-61 #16: 9 DEG. APRCH., 60 KT., 400 FT.

TIME	PEAK SPL	TIME	PEAK SPL	TIME	PEAK SPL	TIME	PEAK SPL
-----	-----	-----	-----	-----	-----	-----	-----
0.5	80.5	25.5	81.5				
1.0	87.1	26.0	82.0				
1.5	88.3	26.5	80.9				
2.0	92.3	27.0	78.0				
2.5	89.2	27.5	81.5				
3.0	83.6	28.0	82.0				
3.5	82.2	28.5	78.8				
4.0	83.5						
4.5	84.8						
5.0	80.6						
5.5	83.3						
6.0	80.9						
6.5	82.1						
7.0	84.1						
7.5	81.3						
8.0	82.7						
8.5	83.4						
9.0	82.8						
9.5	85.3						
10.0	86.1						
10.5	90.5						
11.0	87.3						
11.5	85.9						
12.0	85.9						
12.5	85.8						
13.0	84.4						
13.5	87.3						
14.0	86.8						
14.5	87.6						
15.0	88.7						
15.5	88.5						
16.0	89.9						
16.5	91.0						
17.0	93.0						
17.5	96.0						
18.0	92.7						
18.5	92.6						
19.0	92.4						
19.5	93.1						
20.0	92.6						
20.5	95.4						
21.0	91.9						
21.5	88.7						
22.0	87.1						
22.5	86.3						
23.0	86.3						
23.5	82.7						
24.0	83.3						
24.5	81.8						
25.0	83.0						

TSC S-61 #18: FLYOVER 60 KT., 500 FT.

TIME	PEAK SPL	TIME	PEAK SPL	TIME	PEAK SPL	TIME	PEAK SPL
-----	-----	-----	-----	-----	-----	-----	-----
0.5	89.2	25.5	80.8				
1.0	92.4	26.0	82.1				
1.5	95.0	26.5	83.7				
2.0	94.6	27.0	82.1				
2.5	93.9	27.5	81.1				
3.0	93.0	28.0	80.9				
3.5	90.3						
4.0	89.9						
4.5	90.9						
5.0	86.8						
5.5	88.7						
6.0	86.3						
6.5	89.1						
7.0	96.0						
7.5	92.3						
8.0	92.6						
8.5	91.7						
9.0	91.8						
9.5	91.1						
10.0	90.6						
10.5	94.7						
11.0	92.3						
11.5	94.0						
12.0	95.8						
12.5	94.3						
13.0	95.6						
13.5	92.9						
14.0	92.3						
14.5	94.6						
15.0	93.7						
15.5	92.4						
16.0	92.6						
16.5	95.4						
17.0	91.8						
17.5	92.0						
18.0	91.4						
18.5	89.8						
19.0	89.8						
19.5	92.8						
20.0	91.9						
20.5	88.3						
21.0	87.7						
21.5	88.6						
22.0	86.6						
22.5	86.3						
23.0	87.3						
23.5	85.7						
24.0	84.2						
24.5	82.5						
25.0	81.4						

TSC S-61 #20: 6 DEG. APRCH., 60 KT., 400 FT;

TIME	PEAK SPL	TIME	PEAK SPL	TIME	PEAK SPL	TIME	PEAK SPL
-----	-----	-----	-----	-----	-----	-----	-----
0.5	89.2						
1.0	91.8						
1.5	90.6						
2.0	88.3						
2.5	89.1						
3.0	89.1						
3.5	89.8						
4.0	88.3						
4.5	90.4						
5.0	97.8						
5.5	96.3						
6.0	93.2						
6.5	94.1						
7.0	94.0						
7.5	94.1						
8.0	93.7						
8.5	94.8						
9.0	96.3						
9.5	96.8						
10.0	96.3						
10.5	95.3						
11.0	99.8						
11.5	97.2						
12.0	97.5						
12.5	93.8						
13.0	94.0						
13.5	94.3						
14.0	91.6						
14.5	91.6						
15.0	90.6						
15.5	92.8						
16.0	91.6						
16.5	87.7						
17.0	87.0						
17.5	84.5						
18.0	84.7						
18.5	84.8						
19.0	82.8						
19.5	86.1						
20.0	83.8						
20.5	83.4						

TSC 5-61 #34: FLYOVER , 115 KT. , 500 FT.

TIME	PEAK SPL	TIME	PEAK SPL	TIME	PEAK SPL	TIME	PEAK SPL
0.5	87.3						
1.0	89.0						
1.5	88.0						
2.0	86.3						
2.5	90.9						
3.0	91.2						
3.5	89.3						
4.0	92.3						
4.5	94.0						
5.0	95.7						
5.5	95.6						
6.0	93.3						
6.5	96.4						
7.0	94.3						
7.5	94.8						
8.0	94.3						
8.5	91.6						
9.0	92.5						
9.5	89.7						
10.0	87.3						
10.5	86.3						
11.0	86.8						
11.5	85.8						
12.0	86.0						
12.5	87.0						
13.0	87.2						
13.5	84.6						
14.0	80.7						
14.5	80.4						
15.0	81.1						



TSC S-64 #50: FLYOVER, 60 KT. , 500 FT.

TIME	PEAK SPL	TIME	PEAK SPL	TIME	PEAK SPL	TIME	PEAK SPL
----	-----	----	-----	----	-----	----	-----
0.5	83.5	25.5	89.6				
1.0	87.4	26.0	87.4				
1.5	84.6	26.5	86.5				
2.0	86.8	27.0	84.2				
2.5	87.7	27.5	88.3				
3.0	87.1	28.0	88.2				
3.5	84.6	28.5	82.7				
4.0	81.5	29.0	80.3				
4.5	87.7	29.5	87.3				
5.0	86.8	30.0	80.4				
5.5	86.7	30.5	78.8				
6.0	89.0						
6.5	87.4						
7.0	87.7						
7.5	88.7						
8.0	86.8						
8.5	86.7						
9.0	88.9						
9.5	94.0						
10.0	93.7						
10.5	94.5						
11.0	96.1						
11.5	96.4						
12.0	98.6						
12.5	99.8						
13.0	98.8						
13.5	99.4						
14.0	98.0						
14.5	96.5						
15.0	95.2						
15.5	95.0						
16.0	97.4						
16.5	96.8						
17.0	94.6						
17.5	94.5						
18.0	94.9						
18.5	93.5						
19.0	93.5						
19.5	91.8						
20.0	91.2						
20.5	89.5						
21.0	88.8						
21.5	91.2						
22.0	90.5						
22.5	88.8						
23.0	89.0						
23.5	88.8						
24.0	89.3						
24.5	90.3						
25.0	90.8						

TSC S-64 #51: 6 DEG. APRCH., 60 KT., 400 FT.

TIME	PEAK SPL	TIME	PEAK SPL	TIME	PEAK SPL	TIME	PEAK SPL
0.5	87.4	25.5	87.8				
1.0	88.0	26.0	90.1				
1.5	88.9	26.5	89.1				
2.0	81.0	27.0	88.2				
2.5	81.5	27.5	88.0				
3.0	82.2	28.0	88.1				
3.5	82.5	28.5	86.6				
4.0	88.0	29.0	89.6				
4.5	87.8						
5.0	84.2						
5.5	81.3						
6.0	82.4						
6.5	86.3						
7.0	88.2						
7.5	87.7						
8.0	87.2						
8.5	89.9						
9.0	90.7						
9.5	92.7						
10.0	91.5						
10.5	94.2						
11.0	95.4						
11.5	95.5						
12.0	96.2						
12.5	94.2						
13.0	97.4						
13.5	96.0						
14.0	99.0						
14.5	99.2						
15.0	98.4						
15.5	98.4						
16.0	98.8						
16.5	99.4						
17.0	99.4						
17.5	98.3						
18.0	99.0						
18.5	96.6						
19.0	96.5						
19.5	96.4						
20.0	95.4						
20.5	94.7						
21.0	94.5						
21.5	94.4						
22.0	94.6						
22.5	93.9						
23.0	93.3						
23.5	92.9						
24.0	94.4						
24.5	91.2						
25.0	90.3						

TSC S-64 #67: FLYOVER, 95 KT., 500 FT.

TIME	PEAK SPL	TIME	PEAK SPL	TIME	PEAK SPL	TIME	PEAK SPL
0.5	90.6						
1.0	91.1						
1.5	95.3						
2.0	95.1						
2.5	96.9						
3.0	99.3						
3.5	99.2						
4.0	101.2						
4.5	100.3						
5.0	99.6						
5.5	96.5						
6.0	96.1						
6.5	94.0						
7.0	92.8						
7.5	94.2						
8.0	93.6						
8.5	93.5						
9.0	91.5						
9.5	89.2						
10.0	89.2						
10.5	88.7						
11.0	87.4						
11.5	85.9						
12.0	88.2						
12.5	88.5						
13.0	85.5						
13.5	87.1						

TSC S-64 #74: 6 DEG. APRCH., 60 KT., 400 FT;

TIME	PEAK SPL	TIME	PEAK SPL	TIME	PEAK SPL	TIME	PEAK SPL
-----	-----	-----	-----	-----	-----	-----	-----
0.5	97.1						
1.0	95.1						
1.5	92.5						
2.0	93.6						
2.5	91.4						
3.0	90.5						
3.5	93.5						
4.0	95.4						
4.5	91.8						
5.0	91.8						
5.5	94.2						
6.0	97.4						
6.5	96.6						
7.0	98.4						
7.5	97.4						
8.0	100.1						
8.5	97.9						
9.0	98.3						
9.5	99.1						
10.0	97.9						
10.5	96.8						
11.0	96.5						
11.5	95.6						
12.0	97.1						
12.5	96.0						
13.0	99.0						
13.5	97.5						
14.0	99.6						
14.5	94.5						
15.0	92.9						
15.5	94.2						
16.0	95.4						
16.5	94.6						
17.0	92.1						
17.5	90.9						
18.0	84.8						
18.5	86.0						
19.0	90.8						
19.5	91.9						
20.0	89.3						
20.5	90.9						

TSC S-64 #67: FLYOVER, 95 KT., 500 FT.

TIME	PEAK SPL	TIME	PEAK SPL	TIME	PEAK SPL	TIME	PEAK SPL
0.5	90.6						
1.0	91.1						
1.5	95.3						
2.0	95.1						
2.5	96.9						
3.0	99.3						
3.5	99.2						
4.0	101.2						
4.5	100.3						
5.0	99.6						
5.5	96.5						
6.0	96.1						
6.5	94.0						
7.0	92.8						
7.5	94.2						
8.0	93.6						
8.5	93.5						
9.0	91.5						
9.5	89.2						
10.0	89.2						
10.5	88.7						
11.0	87.4						
11.5	85.9						
12.0	88.2						
12.5	88.5						
13.0	85.5						
13.5	87.1						

TSC S-64 #74: 6 DEG. APRCH., 60 KT., 400 FT;

TIME	PEAK SPL	TIME	PEAK SPL	TIME	PEAK SPL	TIME	PEAK SPL
----	-----	----	-----	----	-----	----	-----
0.5	97.1						
1.0	95.1						
1.5	92.5						
2.0	93.6						
2.5	91.4						
3.0	90.5						
3.5	93.5						
4.0	95.4						
4.5	91.8						
5.0	91.8						
5.5	94.2						
6.0	97.4						
6.5	96.6						
7.0	98.4						
7.5	97.4						
8.0	100.1						
8.5	97.9						
9.0	98.3						
9.5	99.1						
10.0	97.9						
10.5	96.8						
11.0	96.5						
11.5	95.6						
12.0	97.1						
12.5	96.0						
13.0	99.0						
13.5	97.5						
14.0	99.6						
14.5	94.5						
15.0	92.9						
15.5	94.2						
16.0	95.4						
16.5	94.6						
17.0	92.1						
17.5	90.9						
18.0	84.8						
18.5	86.0						
19.0	90.8						
19.5	91.9						
20.0	89.3						
20.5	90.9						



TSC S-64 #78: FLYOVER, 95 KT., 500 FT.

TIME	PEAK SPL	TIME	PEAK SPL	TIME	PEAK SPL	TIME	PEAK SPL
0.5	95.3						
1.0	103.7						
1.5	98.8						
2.0	100.2						
2.5	100.9						
3.0	99.6						
3.5	98.9						
4.0	99.1						
4.5	97.6						
5.0	97.8						
5.5	96.7						
6.0	97.2						
6.5	95.7						
7.0	93.5						
7.5	93.1						
8.0	91.8						
8.5	91.7						
9.0	90.2						
9.5	91.0						
10.0	90.2						
10.5	90.8						
11.0	91.5						
11.5	89.5						
12.0	89.7						
12.5	83.0						
13.0	81.6						

TSC CH-47C #12: 6 DEG. APRCH., 60 KT. 400 FT.

T	PNL	P.T.	PNLT	OA	A-LEV	D-LEV	N-LEV	BAND #
0.0	87.3	0.0	87.3	81.5	72.4	80.0	87.0	0.1
0.5	87.4	0.0	87.4	81.8	72.5	80.1	87.1	0.1
1.0	87.5	0.0	87.5	82.1	72.5	80.2	87.2	0.1
1.5	87.7	0.0	87.7	82.5	72.7	80.3	87.3	0.1
2.0	87.8	0.0	87.8	82.8	72.7	80.4	87.4	0.1
2.5	88.0	0.0	88.0	83.3	73.0	80.6	87.6	0.1
3.0	88.2	0.0	88.2	83.7	73.2	80.8	87.8	0.1
3.5	88.4	0.0	88.4	84.2	73.4	81.0	88.0	0.1
4.0	88.8	0.0	88.8	84.9	73.9	81.4	88.4	0.1
4.5	89.2	0.0	89.2	85.8	74.3	81.9	88.9	0.1
5.0	89.7	0.0	89.7	86.2	74.8	82.2	89.2	0.1
5.5	90.0	0.0	90.0	86.7	75.0	82.5	89.5	0.1
6.0	90.4	0.0	90.4	86.7	75.4	82.7	89.7	0.1
6.5	90.6	0.0	90.6	87.0	75.6	83.0	90.0	0.1
7.0	91.3	0.0	91.3	87.6	76.4	83.6	90.6	0.1
7.5	92.2	0.5	92.7	88.5	77.2	84.3	91.3	0.7
8.0	92.8	0.6	93.4	89.0	77.8	84.8	91.8	0.7
8.5	93.1	0.5	93.6	89.5	78.0	85.1	92.1	0.7
9.0	93.4	0.6	94.0	90.1	78.2	85.4	92.4	0.7
9.5	93.1	0.5	93.6	90.0	78.0	85.3	92.3	0.7
10.0	93.1	0.5	93.6	90.3	77.7	85.3	92.3	0.7
10.5	93.0	0.6	93.6	90.4	77.4	85.1	92.1	0.7
11.0	92.7	0.7	93.4	89.7	77.0	84.7	91.7	0.7
11.5	99.1	3.3	102.4	93.8	86.0	91.6	98.6	0.9
12.0	91.8	0.7	92.5	88.4	75.9	83.7	90.7	0.7
12.5	91.2	0.7	91.9	87.1	75.3	83.0	90.0	0.7
13.0	90.8	0.7	91.5	86.5	74.9	82.7	89.7	0.7
13.5	90.6	0.8	91.4	86.4	74.7	82.5	89.5	0.7
14.0	90.7	0.8	91.5	86.9	74.9	82.6	89.6	0.7
14.5	90.7	0.7	91.4	87.0	75.4	82.7	89.7	0.7
15.0	90.7	0.7	91.4	86.8	75.7	82.7	89.7	0.7
15.5	90.5	1.9	92.4	86.7	75.5	82.6	89.6	1.3
16.0	89.8	1.7	91.5	86.5	74.9	82.2	89.2	1.3
16.5	89.9	1.8	91.7	86.7	74.8	82.2	89.2	1.3
17.0	90.0	0.0	90.0	86.7	74.7	82.1	89.1	0.1
17.5	90.3	0.0	90.3	87.3	74.9	82.4	89.4	0.1
18.0	90.0	0.6	90.6	87.6	74.6	82.4	89.4	0.7
18.5	89.9	0.7	90.6	87.9	74.6	82.4	89.4	0.7
19.0	89.9	0.7	90.6	88.0	74.6	82.5	89.5	0.7
19.5	90.0	0.6	90.6	87.9	74.8	82.5	89.5	0.7
20.0	90.1	0.6	90.7	87.8	75.1	82.5	89.5	0.7
20.5	90.5	0.6	91.1	87.6	76.3	83.0	90.0	0.3
21.0	91.1	0.6	91.7	87.9	77.6	83.5	90.5	0.3
21.5	91.3	0.6	91.9	88.0	77.8	83.7	90.7	0.3
22.0	91.5	0.5	92.0	88.4	77.7	83.7	90.7	1.0
22.5	91.7	0.5	92.2	89.2	77.7	84.0	91.0	1.0
23.0	91.9	0.7	92.6	89.7	77.3	84.1	91.1	0.7
23.5	92.1	0.9	93.0	90.2	76.7	84.1	91.1	0.7
24.0	92.3	1.0	93.3	90.3	76.4	84.2	91.2	0.7
24.5	92.2	0.9	93.1	90.1	76.1	84.1	91.1	0.7
25.0	91.7	0.6	92.3	89.6	75.8	83.9	90.9	0.7
25.5	91.5	0.0	91.5	89.5	75.4	83.7	90.7	0.1
26.0	91.0	0.0	91.0	89.0	74.9	83.3	90.3	0.1
26.5	91.0	0.0	91.0	89.2	74.7	83.3	90.3	0.1
27.0	91.0	0.0	91.0	89.5	74.6	83.3	90.3	0.1
27.5	91.0	0.0	91.0	89.5	74.7	83.3	90.3	0.1
28.0	91.4	0.0	91.4	89.7	75.1	83.6	90.6	0.1
28.5	91.7	0.0	91.7	89.9	75.8	83.9	90.9	0.1
29.0	92.2	0.0	92.2	89.8	76.6	84.3	91.3	0.1

B-104

29.5	92.1	0.0	92.1	89.2	76.9	84.2	91.2	0.1
30.0	92.7	0.0	92.7	89.8	77.2	84.6	91.6	0.1
30.5	93.3	0.0	93.3	90.4	77.6	85.0	92.0	0.1
31.0	93.7	0.0	93.7	90.7	78.3	85.4	92.4	0.1
31.5	94.1	0.0	94.1	91.5	78.8	85.9	92.9	0.1
32.0	94.2	0.0	94.2	92.0	78.7	86.2	93.2	0.1
32.5	94.3	0.0	94.3	92.3	78.9	86.4	93.4	0.1
33.0	94.3	0.0	94.3	92.4	78.8	86.4	93.4	0.1
33.5	94.4	0.5	94.9	92.6	78.9	86.5	93.5	0.3
34.0	94.9	0.0	94.9	93.1	79.1	86.9	93.9	0.1
34.5	95.5	0.0	95.5	93.6	80.2	87.5	94.5	0.1
35.0	96.4	0.9	97.3	94.0	81.9	88.4	95.4	0.9
35.5	97.3	1.0	98.3	94.9	82.7	89.2	96.2	0.9
36.0	98.2	0.9	99.1	95.6	83.8	89.9	96.9	0.9
36.5	98.7	1.0	99.7	95.9	84.2	90.3	97.3	1.0
37.0	98.2	0.9	99.1	95.4	83.8	89.9	96.9	1.0
37.5	98.3	0.0	98.3	94.9	84.0	89.9	96.9	0.1
38.0	98.5	1.1	99.6	95.2	84.2	90.3	97.3	1.3
38.5	99.0	1.1	100.1	95.5	84.7	90.7	97.7	1.3
39.0	99.0	1.2	100.2	95.6	84.9	90.9	97.9	1.3
39.5	99.4	0.9	100.3	95.6	85.4	91.2	98.2	0.8
40.0	100.3	0.0	100.3	96.6	86.4	92.1	99.1	0.1
40.5	101.3	0.0	101.3	97.5	87.4	93.2	100.2	0.1
41.0	101.8	1.2	103.0	97.9	88.2	93.8	100.8	1.2
41.5	101.6	1.2	102.8	97.4	88.0	93.5	100.5	1.2
42.0	101.3	1.0	102.3	97.2	87.6	93.2	100.2	1.2
42.5	101.1	0.8	101.9	97.0	87.2	92.9	99.9	0.4
43.0	101.6	1.1	102.7	97.1	87.5	93.4	100.4	0.4
43.5	102.2	1.0	103.2	97.6	88.3	94.1	101.1	0.4
44.0	102.7	0.8	103.5	98.0	88.9	94.6	101.6	0.2
44.5	103.6	0.6	104.2	98.3	90.2	95.5	102.5	0.8
45.0	104.0	0.6	104.6	98.6	91.0	96.2	103.2	0.7
45.5	104.6	0.6	105.2	99.3	91.3	96.7	103.7	1.0
46.0	104.8	0.5	105.3	99.6	91.6	97.0	104.0	1.0
46.5	105.0	0.0	105.0	100.0	91.7	97.2	104.2	0.1
47.0	104.9	0.5	105.4	100.5	91.7	97.5	104.5	0.6
47.5	105.5	0.7	106.2	101.6	92.1	98.2	105.2	0.4
48.0	106.1	0.5	106.6	102.4	93.0	99.0	106.0	0.4
48.5	106.8	0.6	107.4	103.3	93.8	99.9	106.9	0.9
49.0	107.4	0.6	108.0	104.2	94.5	100.6	107.6	0.5
49.5	107.9	0.6	108.5	104.8	95.1	101.3	108.3	0.5
50.0	107.7	0.0	107.7	104.8	95.0	101.3	108.3	0.1
50.5	107.4	0.0	107.4	104.6	94.5	101.0	108.0	0.1
51.0	106.7	0.0	106.7	103.9	93.6	100.1	107.1	0.1
51.5	106.0	0.6	106.6	102.8	92.7	99.1	106.1	0.4
52.0	105.4	0.9	106.3	101.9	91.8	98.2	105.2	0.2

MAXIMUM VALUES IN BANDS, PNLC =108.6

50	63	80	100	125	160	200	250	315	400
91.9	90.7	89.0	96.3	99.6	97.6	94.4	95.6	95.2	92.4
87.3	84.8	82.9	81.9	78.0	75.3	72.7	70.9	68.1	66.4
65.3	64.7	64.8	65.3						

SPECTRUM FOR MAX PNLT

84.4	80.5	88.7	94.7	99.6	97.5	93.1	94.8	95.2	92.3
87.2	84.5	82.3	79.6	76.6	74.5	70.9	69.4	67.2	65.6
64.5	64.4	64.5	65.3						

P. T.	TIME	MAX.	D10	I-10	D20	I-20	D/15+M	D/30+M	B-105
	11.5	3.3							

PNL	49.5	107.9	16.5	116.0	50.0	116.6	108.3	110.1
PNLT	49.5	108.5	14.5	116.4	48.5	117.1	108.4	110.6
A-LEV	49.5	95.1	13.0	102.6	24.0	102.9	94.5	94.1
N-LEV	49.5	108.3	12.5	115.6	48.5	116.3	107.5	110.4

EPNL =106.4

TSC CH-47C #18: FLYOVER, 60 KT, 500 FT.

T	PNL	P.T.	PNLT	DA	A-LEV	D-LEV	N-LEV	BAND #
0.0	87.7	0.0	87.7	80.4	73.4	80.3	87.3	0.1
0.5	87.6	0.0	87.6	80.5	73.2	80.2	87.2	0.1
1.0	88.2	0.0	88.2	81.7	74.0	80.8	87.8	0.1
1.5	88.6	0.0	88.6	82.3	74.5	81.1	88.1	0.1
2.0	88.8	0.0	88.8	82.4	74.9	81.3	88.3	0.1
2.5	88.5	0.0	88.5	82.3	74.6	81.0	88.0	0.1
3.0	88.3	0.0	88.3	82.7	74.1	80.8	87.8	0.1
3.5	89.0	0.0	89.0	83.7	75.0	81.3	88.3	0.1
4.0	90.2	0.0	90.2	85.3	76.3	82.4	89.4	0.1
4.5	92.0	0.0	92.0	87.3	77.5	83.8	90.8	0.1
5.0	93.7	0.0	93.7	89.3	79.1	85.4	92.4	0.1
5.5	94.5	0.0	94.5	90.5	79.8	86.4	93.4	0.1
6.0	95.7	0.0	95.7	91.6	81.2	87.7	94.7	0.1
6.5	96.4	0.0	96.4	92.2	82.6	88.6	95.6	0.1
7.0	96.8	0.0	96.8	92.4	83.5	89.2	96.2	0.1
7.5	96.9	0.0	96.9	92.9	84.1	89.6	96.6	0.1
8.0	97.5	0.0	97.5	93.1	84.8	90.0	97.0	0.1
8.5	98.0	0.0	98.0	93.8	85.4	90.5	97.5	0.1
9.0	98.1	0.0	98.1	94.7	85.0	90.7	97.7	0.1
9.5	97.8	0.0	97.8	94.9	84.3	90.5	97.5	0.1
10.0	97.6	0.0	97.6	94.9	83.5	90.1	97.1	0.1
10.5	97.0	0.0	97.0	94.8	82.3	89.4	96.4	0.1
11.0	96.3	0.0	96.3	94.3	81.2	88.5	95.5	0.1
11.5	95.7	0.0	95.7	93.5	80.5	87.8	94.8	0.1
12.0	95.2	0.0	95.2	92.7	79.9	87.2	94.2	0.1
12.5	94.7	0.0	94.7	92.1	79.8	87.0	94.0	0.1
13.0	94.7	0.0	94.7	91.9	80.1	87.0	94.0	0.1
13.5	94.4	0.0	94.4	91.7	79.8	86.7	93.7	0.1
14.0	94.2	0.6	94.8	91.7	79.5	86.6	93.6	1.0
14.5	94.2	0.7	94.9	91.4	79.2	86.3	93.3	1.0
15.0	93.9	0.5	94.4	91.5	78.6	85.9	92.9	1.0
15.5	94.1	0.0	94.1	91.8	78.6	86.0	93.0	0.1
16.0	94.6	0.0	94.6	92.3	78.8	86.4	93.4	0.1
16.5	95.1	0.0	95.1	92.9	78.8	86.8	93.8	0.1
17.0	95.2	0.0	95.2	92.9	78.9	86.8	93.8	0.1
17.5	96.0	0.0	96.0	93.1	80.6	87.7	94.7	0.1
18.0	96.9	0.0	96.9	93.9	81.8	88.7	95.7	0.1
18.5	97.5	0.0	97.5	94.5	83.1	89.4	96.4	0.1
19.0	97.4	0.0	97.4	94.1	83.4	89.2	96.2	0.1
19.5	96.4	0.0	96.4	93.0	82.6	88.3	95.3	0.1
20.0	95.5	0.0	95.5	92.1	81.4	87.3	94.3	0.1
20.5	95.0	0.5	95.5	91.8	80.4	86.7	93.7	0.9
21.0	96.0	0.5	96.5	93.0	81.6	87.7	94.7	0.9
21.5	98.0	0.0	98.0	94.5	84.5	90.1	97.1	0.1
22.0	98.2	0.0	98.2	95.3	84.5	90.4	97.4	0.1
22.5	98.0	0.0	98.0	95.2	84.4	90.2	97.2	0.1
23.0	97.0	1.2	98.2	94.1	83.3	89.1	96.1	1.2
23.5	95.6	1.3	96.9	92.5	82.1	87.7	94.7	1.2
24.0	95.3	0.0	95.3	92.3	81.6	87.4	94.4	0.1
24.5	96.3	0.0	96.3	93.3	82.0	88.3	95.3	0.1
25.0	97.3	0.0	97.3	94.6	82.7	89.4	96.4	0.1
25.5	97.5	0.0	97.5	94.8	82.9	89.5	96.5	0.1
26.0	97.0	1.0	98.0	94.1	82.4	89.0	96.0	1.5
26.5	96.2	1.2	97.4	93.0	81.7	88.3	95.3	1.5
27.0	96.6	0.0	96.6	93.2	82.2	88.5	95.5	0.1
27.5	97.7	1.2	98.9	94.4	83.5	89.6	96.6	1.2
28.0	98.7	1.2	99.9	95.6	84.8	90.7	97.7	1.2
28.5	99.4	0.0	99.4	96.5	84.9	91.3	98.3	0.1
29.0	99.9	0.5	100.4	96.9	85.5	91.8	98.8	1.0

B-107



29.5	99.7	1.0	100.9	96.9	85.6	91.8	98.8	1.4
30.0	99.4	0.6	100.0	96.6	84.9	91.3	98.3	1.0
30.5	99.3	0.7	100.0	96.3	85.1	91.3	98.3	1.0
31.0	99.7	0.8	100.5	96.5	85.3	91.5	98.5	1.0
31.5	99.8	0.7	100.5	96.7	85.7	91.8	98.8	1.0
32.0	99.7	0.8	100.5	96.2	86.0	91.7	98.7	0.8
32.5	98.9	0.7	99.6	95.4	85.1	91.0	98.0	0.4
33.0	98.2	0.7	98.9	94.7	84.4	90.3	97.3	0.4
33.5	98.4	0.7	99.1	95.1	84.6	90.6	97.6	0.4
34.0	100.3	1.1	101.4	96.5	86.3	92.1	99.1	0.8
34.5	100.4	1.1	101.5	96.4	86.2	92.0	99.0	0.8
35.0	100.0	1.1	101.1	95.8	85.6	91.5	98.5	0.8
35.5	100.0	0.8	100.8	95.7	85.5	91.5	98.5	0.2
36.0	100.6	0.8	101.4	96.0	86.4	92.3	99.3	0.2
36.5	101.6	0.7	102.3	96.8	87.9	93.5	100.5	0.7
37.0	102.6	0.9	103.5	97.5	88.5	94.3	101.3	0.7
37.5	103.5	1.0	104.5	98.1	89.6	95.2	102.2	0.7
38.0	104.0	1.2	105.2	98.6	90.0	95.8	102.8	0.7
38.5	103.9	1.3	105.2	98.8	90.1	95.8	102.8	0.7
39.0	103.6	0.9	104.5	98.9	89.8	95.6	102.6	1.0
39.5	103.8	1.0	104.8	98.6	90.1	95.9	102.9	0.6
40.0	103.1	0.7	103.8	98.1	89.5	95.3	102.3	0.6
40.5	102.6	0.7	103.3	97.8	88.7	94.8	101.8	0.6
41.0	102.4	0.7	103.1	97.5	88.9	94.7	101.7	0.6
41.5	103.2	0.9	104.1	98.6	89.5	95.5	102.5	0.6
42.0	103.3	1.0	104.3	98.9	89.3	95.5	102.5	0.6
42.5	103.1	0.7	103.8	99.1	89.2	95.5	102.5	0.6
43.0	102.3	0.0	102.3	98.3	88.7	94.8	101.8	0.1
43.5	101.1	0.0	101.1	96.9	87.5	93.6	100.6	0.1
44.0	100.5	0.0	100.5	96.0	87.0	93.0	100.0	0.1
44.5	99.8	0.0	99.8	94.9	86.6	92.3	99.3	0.1
45.0	99.5	0.0	99.5	94.2	86.3	92.0	99.0	0.1
45.5	99.1	0.5	99.6	93.8	86.1	91.6	98.6	0.9
46.0	98.3	1.0	99.3	92.8	85.2	90.8	97.8	1.6
46.5	97.3	1.1	98.4	91.5	84.4	89.8	96.8	1.6
47.0	96.5	1.3	97.8	90.5	83.5	88.9	95.9	1.6
47.5	95.7	1.2	96.9	90.0	82.5	87.9	94.9	1.6
48.0	95.3	1.4	96.7	90.0	81.8	87.3	94.3	1.6
48.5	94.4	1.4	95.8	90.0	80.7	86.5	93.5	1.6
49.0	93.4	1.3	94.7	90.1	79.7	85.7	92.7	1.6
49.5	92.8	1.2	94.0	90.0	78.8	85.0	92.0	1.6
50.0	92.4	1.5	93.9	89.6	78.6	84.8	91.8	1.6

MAXIMUM VALUES IN BANDS, PNLC =105.5

50	63	80	100	125	160	200	250	315	400
92.3	90.7	90.0	91.3	92.1	94.1	92.4	89.0	89.0	87.8
83.0	81.8	79.8	79.0	78.5	76.8	75.1	73.7	70.8	68.6
66.4	64.6	64.5	65.3						

SPECTRUM FOR MAX PNLT

90.5	87.3	89.9	81.9	81.2	88.5	92.4	87.6	84.5	86.9
81.0	81.4	78.7	78.5	78.5	76.8	74.4	72.8	70.0	67.3
65.1	63.8	64.1	64.9						

	TIME	MAX	D10	I-10	D20	I-20	D/15+M	D/30+M
P.T.	50.0	1.5						
PNL	38.0	104.0	34.0	115.0	50.0	115.6	107.6	106.2
PNLT	38.0	105.2	32.0	115.7	50.0	116.3	108.5	107.4
A-LEV	38.5	90.1	32.0	101.1	50.0	101.7	93.4	92.3
N-LEV	39.5	102.9	34.0	114.1	50.0	114.7	106.5	105.1

B-108



EPNL =105.7

B-109

TSC CH-47C #20: 9 DEG APRCH, 60 KT., 400 FT.

T	PNL	P.T	PNLT	DA	A-LEV	D-LEV	N-LEV	BAND #
0.0	91.6	1.2	92.8	88.4	77.1	83.9	90.9	0.7
0.5	91.9	1.0	92.9	88.5	77.3	83.9	90.9	0.7
1.0	92.3	1.0	93.3	88.5	77.9	84.2	91.2	0.7
1.5	91.9	0.8	92.7	87.9	77.7	83.9	90.9	0.7
2.0	91.0	0.8	91.8	87.4	76.8	83.3	90.3	0.7
2.5	90.4	0.8	91.2	87.3	76.1	82.9	89.9	0.7
3.0	89.6	1.0	90.6	87.1	75.1	82.3	89.3	1.1
3.5	89.2	1.1	90.3	86.8	74.3	81.9	88.9	1.1
4.0	89.1	0.0	89.1	86.9	74.1	81.8	88.8	0.1
4.5	89.0	0.0	89.0	86.7	74.0	81.7	88.7	0.1
5.0	89.1	0.0	89.1	86.3	74.3	81.7	88.7	0.1
5.5	89.1	0.6	89.7	86.2	74.7	81.8	88.8	0.7
6.0	89.1	0.5	89.6	85.7	74.6	81.7	88.7	1.0
6.5	89.1	0.6	89.7	85.8	74.6	81.7	88.7	1.0
7.0	89.3	1.1	90.4	85.9	75.1	82.0	89.0	1.4
7.5	89.8	1.4	91.2	86.1	75.9	82.3	89.3	1.4
8.0	91.1	1.4	92.5	86.9	76.9	83.1	90.1	1.4
8.5	92.2	1.4	93.6	87.9	78.0	84.0	91.0	1.4
9.0	92.6	1.4	94.0	88.8	78.2	84.4	91.4	1.4
9.5	92.9	1.0	93.9	89.5	78.3	84.6	91.6	1.0
10.0	93.4	1.1	94.5	89.8	78.7	85.0	92.0	1.0
10.5	93.8	1.2	95.0	90.2	79.0	85.3	92.3	1.0
11.0	94.2	1.1	95.3	90.5	79.6	85.7	92.7	1.0
11.5	94.6	1.1	95.7	90.6	80.0	86.1	93.1	1.1
12.0	95.0	0.7	95.7	91.0	80.5	86.5	93.5	0.6
12.5	95.9	0.8	96.7	91.6	81.6	87.4	94.4	0.6
13.0	96.3	1.3	97.6	92.4	82.0	87.9	94.9	1.3
13.5	96.6	1.5	98.1	92.8	82.5	88.3	95.3	1.3
14.0	96.9	1.5	98.4	92.8	82.9	88.6	95.6	1.3
14.5	97.2	1.5	98.7	92.6	83.6	89.0	96.0	1.3
15.0	98.0	0.8	98.8	93.1	84.8	89.9	96.9	0.8
15.5	98.0	0.9	98.9	93.3	84.8	90.1	97.1	0.8
16.0	97.6	0.8	98.4	93.3	84.6	90.0	97.0	0.8
16.5	98.1	0.7	98.8	94.0	85.0	90.5	97.5	0.8
17.0	98.8	0.8	99.6	94.9	85.9	91.4	98.4	0.8
17.5	99.4	1.0	100.4	95.3	86.4	92.0	99.0	1.2
18.0	99.5	0.5	100.0	95.3	86.2	91.9	98.9	0.8
18.5	99.3	0.0	99.3	95.1	85.8	91.6	98.6	0.1
19.0	99.6	0.5	100.1	95.3	85.8	91.6	98.6	0.8
19.5	100.1	0.6	100.7	95.8	86.3	92.0	99.0	0.8
20.0	100.3	0.6	100.9	96.0	86.5	92.2	99.2	0.8
20.5	100.6	0.6	101.2	96.1	86.9	92.5	99.5	0.6
21.0	101.3	0.7	102.0	96.5	87.5	93.2	100.2	0.6
21.5	101.6	0.8	102.4	96.7	87.8	93.6	100.6	0.6
22.0	102.0	0.6	102.6	97.1	88.2	94.1	101.1	0.6
22.5	102.1	0.6	102.7	97.2	88.5	94.4	101.4	0.8
23.0	102.3	0.7	103.0	97.6	89.0	95.0	102.0	1.0
23.5	102.8	0.7	103.5	98.1	89.6	95.6	102.6	1.0
24.0	103.5	0.0	103.5	98.8	90.4	96.3	103.3	0.1
24.5	104.3	0.5	104.8	99.7	91.0	96.9	103.9	0.5
25.0	105.2	0.6	105.8	100.9	91.9	97.9	104.9	0.7
25.5	106.0	0.7	106.7	102.2	93.1	99.1	106.1	0.9
26.0	106.1	0.7	106.8	102.5	93.5	99.4	106.4	0.9
26.5	106.7	0.6	107.3	103.2	94.0	100.0	107.0	0.9
27.0	107.2	0.6	107.8	103.7	94.4	100.4	107.4	0.5
27.5	107.5	0.6	108.1	104.2	94.7	100.8	107.8	0.5
28.0	107.7	0.0	107.7	104.9	94.9	101.2	108.2	0.1
28.5	107.2	0.0	107.2	104.7	94.1	100.7	107.7	0.1
29.0	106.3	0.0	106.3	103.8	93.0	99.8	106.8	0.1

B-110

29.5	105.9	0.9	106.8	102.9	92.0	98.9	105.9	0.4
30.0	105.4	0.7	106.1	101.9	91.2	98.0	105.0	0.4
30.5	104.7	1.1	105.8	100.8	90.7	97.2	104.2	1.6
31.0	104.1	1.1	105.2	100.0	90.1	96.4	103.4	1.6
31.5	103.2	1.1	104.3	99.0	89.4	95.6	102.6	1.6
32.0	102.1	0.0	102.1	97.8	88.1	94.3	101.3	0.1
32.5	100.8	0.0	100.8	96.4	87.0	93.0	100.0	0.1
33.0	99.7	0.0	99.7	95.3	85.9	91.8	98.8	0.1
33.5	99.0	0.0	99.0	94.6	85.1	91.0	98.0	0.1
34.0	98.2	0.0	98.2	94.2	84.1	90.0	97.0	0.1
34.5	97.6	0.0	97.6	93.9	83.5	89.4	96.4	0.1
35.0	96.9	1.0	97.9	93.3	82.8	88.7	95.7	1.6
35.5	96.1	1.3	97.4	92.7	82.1	88.0	95.0	1.6
36.0	95.0	1.5	96.5	91.8	80.9	87.0	94.0	1.6
36.5	94.1	1.5	95.6	91.0	79.8	86.1	93.1	1.6
37.0	93.0	1.3	94.3	89.9	78.5	85.0	92.0	1.6
37.5	92.0	1.3	93.3	88.8	77.6	84.2	91.2	1.6
38.0	90.9	1.4	92.3	87.7	76.7	83.4	90.4	1.6
38.5	90.2	1.4	91.6	86.9	75.9	82.8	89.8	1.6

MAXIMUM VALUES IN BANDS, PNLC =108.5

50	63	80	100	125	160	200	250	315	400
90.2	87.6	91.0	97.3	99.5	97.7	95.9	95.3	94.9	91.0
87.7	85.4	83.3	80.4	77.0	75.8	71.2	69.6	69.2	68.1
66.7	66.0	65.4	65.5						

SPECTRUM FOR MAX PNLT

77.1	81.4	89.1	93.4	98.9	97.1	93.1	94.5	94.9	90.5
87.7	85.2	82.2	79.8	76.9	73.6	70.8	68.9	67.0	65.7
64.5	64.2	64.5	65.2						

	TIME	MAX.	D10	I-10	D20	I-20	D/15+M	D/30+M
P.T.	13.5	1.5						
PNL	28.0	107.7	18.5	116.3	38.5	116.8	108.6	108.8
PNLT	27.5	108.1	21.0	117.0	38.5	117.4	109.6	109.2
A-LEV	28.0	94.9	18.0	103.0	32.0	103.4	95.7	95.2
N-LEV	28.0	108.2	17.0	116.1	38.5	116.6	108.7	109.3

EPNL =107.0

TSC CH-47C #23: FLYDVER, 100 KT., 500 FT.

T	PNL	P.T.	PNLT	QA	A-LEV	D-LEV	N-LEV	BAND #
0.0	86.8	0.5	87.3	79.5	71.9	79.7	86.7	0.2
0.5	86.7	0.5	87.2	79.1	71.8	79.6	86.6	0.2
1.0	86.6	0.6	87.2	79.0	71.7	79.5	86.5	0.2
1.5	86.5	0.6	87.1	79.1	71.7	79.5	86.5	0.2
2.0	86.6	0.6	87.2	79.1	71.8	79.5	86.5	0.2
2.5	86.9	0.6	87.5	80.1	71.9	79.7	86.7	0.2
3.0	87.3	0.6	87.9	80.8	72.2	80.0	87.0	0.2
3.5	87.5	0.6	88.1	81.2	72.4	80.2	87.2	0.2
4.0	87.4	0.6	88.0	81.1	72.4	80.2	87.2	0.2
4.5	87.4	0.6	88.0	80.9	72.4	80.1	87.1	0.2
5.0	87.3	0.6	87.9	80.8	72.4	80.1	87.1	0.2
5.5	87.3	0.6	87.9	80.7	72.3	80.0	87.0	0.2
6.0	87.2	0.6	87.8	80.8	72.2	79.9	86.9	0.2
6.5	87.4	0.6	88.0	81.3	72.4	80.1	87.1	0.2
7.0	87.3	0.6	87.9	81.5	72.2	80.1	87.1	0.2
7.5	87.2	0.6	87.8	81.8	72.0	80.0	87.0	0.2
8.0	87.3	0.5	87.8	82.3	72.0	80.1	87.1	0.2
8.5	87.4	0.5	87.9	83.0	72.0	80.2	87.2	0.2
9.0	87.4	0.6	88.0	83.1	72.0	80.2	87.2	0.2
9.5	87.6	0.6	88.2	83.6	72.1	80.4	87.4	0.2
10.0	87.7	0.6	88.3	84.1	72.2	80.5	87.5	0.2
10.5	88.0	0.6	88.6	84.9	72.3	80.8	87.8	0.2
11.0	88.3	0.6	88.9	85.7	72.6	81.2	88.2	0.2
11.5	88.8	0.6	89.4	86.6	73.0	81.7	88.7	0.2
12.0	89.5	0.6	90.1	87.3	73.4	82.2	89.2	0.2
12.5	90.3	0.6	90.9	88.3	73.8	82.7	89.7	0.2
13.0	90.7	0.6	91.3	88.8	74.2	83.1	90.1	0.2
13.5	91.0	0.6	91.6	89.3	74.3	83.4	90.4	0.2
14.0	91.3	0.6	91.9	90.0	74.6	83.8	90.8	0.2
14.5	91.5	0.6	92.1	90.4	74.7	84.0	91.0	0.2
15.0	91.7	0.6	92.3	91.0	74.8	84.3	91.3	0.2
15.5	92.1	0.6	92.7	91.7	75.1	84.8	91.8	0.2
16.0	93.1	0.6	93.7	92.6	75.9	85.6	92.6	0.5
16.5	94.1	0.6	94.7	93.6	77.0	86.6	93.6	0.5
17.0	94.6	0.6	95.2	94.2	77.5	87.1	94.1	0.5
17.5	94.5	0.6	95.1	94.3	77.4	87.1	94.1	0.5
18.0	94.4	0.5	94.9	94.2	77.3	87.1	94.1	0.5
18.5	94.2	0.0	94.2	94.1	77.3	87.0	94.0	0.1
19.0	93.9	0.5	94.4	94.0	77.1	86.8	93.8	0.2
19.5	93.6	0.6	94.2	93.6	76.8	86.4	93.4	0.2
20.0	93.6	0.7	94.3	93.6	76.8	86.4	93.4	0.2
20.5	93.6	0.7	94.3	93.5	76.9	86.5	93.5	0.2
21.0	93.7	0.7	94.4	93.2	76.7	86.4	93.4	0.2
21.5	94.0	0.6	94.6	93.4	76.9	86.6	93.6	0.2
22.0	94.6	0.0	94.6	94.1	77.6	87.3	94.3	0.1
22.5	94.9	0.0	94.9	94.7	78.0	87.7	94.7	0.1
23.0	95.1	0.5	95.6	94.7	78.2	87.7	94.7	0.2
23.5	94.9	0.6	95.5	94.8	78.0	87.6	94.6	0.2
24.0	95.0	0.6	95.6	95.1	78.1	87.8	94.8	0.2
24.5	94.7	0.6	95.3	94.9	77.6	87.4	94.4	0.2
25.0	94.8	0.5	95.3	95.3	77.6	87.7	94.7	0.2
25.5	95.4	0.0	95.4	96.0	78.2	88.3	95.3	0.1
26.0	95.6	0.6	96.2	96.4	78.5	88.6	95.6	0.2
26.5	96.0	0.6	96.6	96.9	78.7	88.9	95.9	0.2
27.0	96.4	0.7	97.1	97.4	78.9	89.3	96.3	0.2
27.5	96.7	0.7	97.4	97.3	79.6	89.3	96.3	0.2
28.0	96.8	0.8	97.6	97.0	80.0	89.2	96.2	0.2
28.5	96.6	0.8	97.4	96.6	79.9	88.9	95.9	0.2
29.0	96.4	0.9	97.3	96.2	79.7	88.5	95.5	0.2

B-112

29.5	96.1	0.9	97.0	95.7	79.7	88.2	95.2	0.2
30.0	95.8	0.9	96.7	94.9	79.8	87.9	94.9	0.2
30.5	95.3	0.7	96.0	93.9	79.7	87.4	94.4	0.2
31.0	95.4	0.0	95.4	93.0	80.2	87.5	94.5	0.1
31.5	96.2	0.6	96.8	92.7	80.9	88.0	95.0	0.7
32.0	96.7	0.9	97.6	92.3	80.9	88.2	95.2	0.7
32.5	97.1	1.2	98.3	93.0	81.3	88.8	95.8	0.7
33.0	97.4	1.0	98.4	93.5	81.6	89.4	96.4	0.2
33.5	97.2	0.9	98.1	93.0	81.3	89.1	96.1	0.2
34.0	97.5	0.0	97.5	93.8	81.5	89.5	96.5	0.1
34.5	98.1	0.0	98.1	94.6	82.0	90.1	97.1	0.1
35.0	98.6	0.0	98.6	95.2	82.4	90.5	97.5	0.1
35.5	98.2	0.0	98.2	94.8	82.3	90.2	97.2	0.1
36.0	98.8	0.0	98.8	95.3	83.0	90.8	97.8	0.1
36.5	99.1	0.7	99.8	95.3	83.6	91.0	98.0	0.5
37.0	98.8	0.8	99.6	94.8	83.7	90.7	97.7	0.5
37.5	98.1	0.7	98.8	93.8	83.4	90.1	97.1	0.2
38.0	96.8	0.7	97.5	92.2	82.5	88.9	95.9	0.2
38.5	95.4	0.6	96.0	90.7	81.3	87.6	94.6	0.5
39.0	94.9	0.0	94.9	90.2	80.5	86.9	93.9	0.1
39.5	94.5	0.0	94.5	89.8	80.1	86.4	93.4	0.1
40.0	93.6	0.0	93.6	88.9	79.3	85.6	92.6	0.1
40.5	92.6	0.0	92.6	87.8	78.5	84.8	91.8	0.1
41.0	91.6	0.6	92.2	86.6	77.7	84.0	91.0	0.3
41.5	90.8	0.6	91.4	85.5	76.9	83.3	90.3	0.3
42.0	89.9	0.7	90.6	84.1	76.1	82.5	89.5	0.3
42.5	89.3	0.7	90.0	82.8	75.7	82.0	89.0	0.3
43.0	88.8	0.6	89.4	81.7	75.2	81.6	88.6	0.3
43.5	88.4	0.5	88.9	81.0	74.7	81.2	88.2	0.3
44.0	88.2	0.0	88.2	80.4	74.3	80.9	87.9	0.1
44.5	88.2	0.0	88.2	80.2	74.5	81.0	88.0	0.1
45.0	88.5	1.1	89.6	80.2	75.3	81.5	88.5	1.5
45.5	88.3	0.0	88.3	79.8	75.1	81.3	88.3	0.1
46.0	87.8	0.0	87.8	79.2	74.2	80.7	87.7	0.1
46.5	87.4	0.0	87.4	78.7	73.3	80.2	87.2	0.1
47.0	87.1	0.0	87.1	78.4	73.0	80.0	87.0	0.1

MAXIMUM VALUES IN BANDS, PNLC =100.6

50	63	80	100	125	160	200	250	315	400
89.3	93.5	89.5	88.9	90.1	88.4	85.3	81.7	78.4	78.8
74.4	73.4	74.2	72.5	71.5	72.1	68.8	67.3	66.6	66.0
64.9	64.4	64.4	65.1						

SPECTRUM FOR MAX PNLT

86.3	82.7	80.1	86.6	90.1	88.4	83.0	77.9	77.6	73.5
73.0	72.8	73.4	71.4	70.5	71.1	67.8	66.8	66.6	66.0
64.8	64.2	64.4	65.1						

	TIME	MAX.	D10	I-10	D20	I-20	D/15+M	D/30+M
P.T.	32.5	1.2						
PNL	36.5	99.1	31.5	110.3	47.0	110.6	102.3	101.0
PNLT	36.5	99.8	31.5	110.8	47.0	111.2	103.0	101.7
A-LEV	37.0	83.7	34.5	94.4	47.0	94.8	87.3	85.6
N-LEV	36.5	98.0	33.5	109.7	47.0	110.0	101.5	99.9

EPNL =100.8

B-113

TSC CH-47C #24: FLYOVER, 141 KT., 500 FT.

T	PNL	P.T	PNLT	OA	A-LEV	D-LEV	N-LEV	BAND #
0.0	86.7	0.5	87.2	79.1	71.9	79.6	86.6	0.3
0.5	86.7	0.6	87.3	79.1	71.9	79.6	86.6	0.3
1.0	86.8	0.6	87.4	79.1	72.1	79.7	86.7	0.3
1.5	87.0	0.6	87.5	79.3	72.2	79.8	86.8	0.3
2.0	87.1	0.5	87.6	79.7	72.2	79.9	86.9	0.3
2.5	87.0	0.0	87.0	79.5	72.2	79.8	86.8	0.1
3.0	87.1	0.0	87.1	79.6	72.2	79.9	86.9	0.1
3.5	87.3	0.0	87.3	80.1	72.4	80.1	87.1	0.1
4.0	87.4	0.7	88.1	80.6	72.5	80.1	87.1	0.4
4.5	87.5	0.8	88.3	81.1	72.6	80.2	87.2	0.4
5.0	87.7	0.9	88.6	81.5	72.7	80.4	87.4	0.4
5.5	87.9	0.9	88.8	82.2	72.8	80.6	87.6	0.4
6.0	88.1	1.0	89.1	82.6	73.0	80.8	87.8	0.4
6.5	88.3	1.0	89.3	83.1	73.2	81.0	88.0	0.4
7.0	88.3	1.0	89.3	83.2	73.3	81.1	88.1	0.4
7.5	88.4	1.0	89.4	83.3	73.5	81.2	88.2	0.4
8.0	88.6	0.7	89.3	83.8	73.7	81.4	88.4	0.4
8.5	88.7	0.6	89.5	84.3	74.0	81.7	88.7	0.6
9.0	89.1	0.5	89.6	84.6	74.3	81.9	88.9	0.6
9.5	89.5	0.6	90.1	85.2	74.7	82.2	89.2	0.3
10.0	89.9	0.6	90.5	85.9	74.9	82.5	89.5	0.3
10.5	90.1	0.6	90.7	86.3	75.0	82.6	89.6	0.3
11.0	90.7	0.0	90.7	87.6	75.5	83.3	90.3	0.1
11.5	91.7	0.0	91.7	89.1	76.1	84.1	91.1	0.1
12.0	92.6	0.0	92.6	90.2	76.9	84.9	91.9	0.1
12.5	93.9	0.0	93.9	91.9	78.2	86.2	93.2	0.1
13.0	95.7	0.0	95.7	94.1	80.1	88.2	95.2	0.1
13.5	98.0	0.0	98.0	96.5	83.0	90.7	97.7	0.1
14.0	100.2	0.0	100.2	99.0	85.3	93.1	100.1	0.1
14.5	101.6	0.0	101.6	100.7	86.8	94.7	101.7	0.1
15.0	102.6	0.0	102.6	102.0	87.9	96.0	103.0	0.1
15.5	103.5	0.0	103.5	103.0	88.8	97.0	104.0	0.1
16.0	104.4	0.0	104.4	103.8	89.9	98.0	105.0	0.1
16.5	104.8	0.0	104.8	104.2	90.5	98.5	105.5	0.1
17.0	104.9	0.0	104.9	104.5	90.8	98.8	105.8	0.1
17.5	104.8	0.0	104.8	104.4	90.5	98.7	105.7	0.1
18.0	104.3	0.0	104.3	103.9	89.8	98.1	105.1	0.1
18.5	103.5	0.0	103.5	103.1	88.7	97.2	104.2	0.1
19.0	102.8	0.5	103.3	102.3	87.7	96.3	103.3	0.4
19.5	102.0	0.6	102.6	101.5	86.7	95.4	102.4	0.2
20.0	101.7	0.8	102.0	100.9	85.8	94.6	101.6	0.2
20.5	100.5	1.1	101.6	100.4	85.0	93.9	100.9	0.2
21.0	100.6	1.3	101.9	100.6	85.1	94.1	101.1	0.2
21.5	101.1	1.4	102.5	101.6	86.0	95.1	102.1	0.2
22.0	101.8	1.5	103.3	102.7	86.9	96.2	103.2	0.2
22.5	102.7	1.5	103.7	103.3	87.2	96.7	103.7	0.2
23.0	102.4	1.5	103.9	103.8	87.3	96.9	103.9	0.2
23.5	103.2	1.4	104.6	104.6	87.5	97.5	104.5	0.2
24.0	103.7	1.4	105.1	105.3	87.7	98.0	105.0	0.2
24.5	104.3	1.3	105.6	105.6	87.8	98.1	105.1	0.2
25.0	103.6	1.3	104.9	104.9	86.8	97.2	104.2	0.2
25.5	102.8	1.2	104.0	103.9	86.0	96.1	103.1	0.2
26.0	101.7	1.0	102.9	103.1	85.0	95.0	102.0	0.2
26.5	101.5	0.8	102.3	102.1	84.5	94.0	101.0	0.2
27.0	100.7	0.0	100.9	100.9	84.7	93.3	100.3	0.1
27.5	100.7	0.0	100.9	99.7	85.2	93.1	100.1	0.1
28.0	102.1	0.6	102.7	99.1	86.4	93.9	100.9	1.0 B-114
28.5	102.6	0.0	102.6	99.3	87.1	94.7	101.7	0.1
29.0	102.5	0.0	102.5	99.4	86.8	94.6	101.6	0.1



29.5	102.9	0.0	102.9	99.8	87.2	95.1	102.1	0.1
30.0	103.0	0.0	103.0	100.0	87.3	95.2	102.2	0.1
30.5	102.1	0.0	102.1	98.8	86.5	94.1	101.1	0.1
31.0	101.3	0.7	102.0	97.5	85.9	93.1	100.1	0.9
31.5	100.4	0.7	101.1	96.4	85.5	92.2	99.2	0.5
32.0	98.9	0.7	99.6	94.5	84.3	90.8	97.8	0.5
32.5	97.3	0.7	98.0	92.8	83.0	89.4	96.4	0.5
33.0	95.8	0.6	96.4	91.0	81.7	87.9	94.9	0.5
33.5	94.5	0.0	94.5	89.5	80.6	86.8	93.8	0.1
34.0	93.4	0.0	93.4	88.1	80.0	85.9	92.9	0.1
34.5	92.2	0.0	92.2	86.6	78.6	84.6	91.6	0.1
35.0	90.9	0.0	90.9	85.0	77.3	83.4	90.4	0.1
35.5	90.2	0.0	90.2	83.9	76.7	82.7	89.7	0.1
36.0	89.6	0.0	89.6	82.6	76.1	82.2	89.2	0.1

MAXIMUM VALUES IN BANDS, PNLC =107.1

50	63	80	100	125	160	200	250	315	400
94.2	101.0	97.4	99.7	97.4	95.4	94.6	91.5	87.8	86.4
80.5	75.6	75.9	74.3	72.7	72.3	70.6	70.1	69.4	68.5
67.3	65.8	65.0	65.4						

SPECTRUM FOR MAX PNLT

88.6	101.0	97.4	99.7	97.4	92.4	89.8	79.7	78.6	80.6
76.1	71.0	67.2	66.2	63.4	62.4	63.7	61.1	60.3	60.1
60.9	62.2	63.8	64.9						

	TIME	MAX.	D10	I-10	D20	I-20	D/15+M	D/30+M
P.T.	22.0	1.5						
PNL	17.0	104.9	21.0	115.4	36.0	115.6	106.4	105.7
PNLT	24.5	105.6	21.0	116.0	36.0	116.1	107.1	106.4
A-LEV	17.0	90.8	20.5	100.2	36.0	100.4	92.2	91.6
N-LEV	17.0	105.8	20.0	115.7	36.0	115.9	107.0	106.6

EPNL =106.0

TSC CH-47C #27: FLYOVER, 141 KT., 500 FT.

T	PNL	P.T.	PNLT	OA	A-LEV	D-LEV	N-LEV	BAND #
0.0	86.4	0.0	86.4	78.2	71.7	79.4	86.4	0.1
0.5	86.7	0.0	86.7	78.9	71.9	79.6	86.6	0.1
1.0	87.1	0.0	87.1	79.8	72.1	79.9	86.9	0.1
1.5	87.4	0.5	87.9	80.7	72.3	80.1	87.1	0.4
2.0	87.5	0.5	88.0	80.8	72.6	80.2	87.2	0.4
2.5	87.7	0.0	87.7	80.6	72.9	80.3	87.3	0.1
3.0	88.0	0.0	88.0	81.2	73.3	80.5	87.5	0.1
3.5	88.2	0.0	88.2	82.0	73.4	80.7	87.7	0.1
4.0	88.4	0.0	88.4	82.3	73.7	80.8	87.8	0.1
4.5	88.6	0.0	88.6	82.5	73.9	81.0	88.0	0.1
5.0	88.9	0.7	89.6	83.6	74.3	81.3	88.3	0.5
5.5	89.6	1.1	90.7	84.6	74.7	81.8	88.8	0.5
6.0	90.7	1.1	92.0	86.0	75.9	82.8	89.8	0.5
6.5	92.1	1.0	93.1	87.4	77.5	84.0	91.0	0.2
7.0	94.1	1.3	95.4	89.9	79.1	85.8	92.8	0.2
7.5	94.8	1.3	96.1	91.1	79.6	86.4	93.4	0.2
8.0	95.1	1.4	96.5	91.8	80.0	86.8	93.8	0.2
8.5	95.1	1.7	96.8	93.1	79.6	86.9	93.9	0.2
9.0	96.2	1.5	97.7	94.9	79.9	87.9	94.9	0.2
9.5	97.9	1.4	99.3	96.9	82.0	90.0	97.0	0.2
10.0	101.6	1.1	102.7	100.5	86.1	94.2	101.2	0.2
10.5	105.6	0.9	106.5	104.4	91.6	99.0	106.0	0.2
11.0	107.4	0.7	108.1	106.3	94.1	101.2	108.2	0.2
11.5	107.6	0.6	108.2	106.8	94.2	101.5	108.5	0.2
12.0	107.6	0.7	108.3	106.6	93.9	101.3	108.3	0.2
12.5	107.0	0.8	107.8	106.1	93.0	100.6	107.6	0.2
13.0	107.4	1.0	108.4	106.8	93.1	101.1	108.1	0.2
13.5	108.0	1.2	109.2	107.4	93.5	101.6	108.6	0.2
14.0	108.2	1.5	109.7	107.9	93.3	101.7	108.7	0.2
14.5	108.3	1.6	109.9	108.0	93.3	101.7	108.7	0.2
15.0	108.2	1.5	109.7	107.7	93.3	101.4	108.4	0.2
15.5	107.4	1.5	108.9	107.2	92.2	100.6	107.6	0.2
16.0	106.6	1.6	108.2	106.7	91.1	99.8	106.8	0.2
16.5	105.9	1.6	107.5	105.9	90.4	98.9	105.9	0.2
17.0	105.1	1.7	106.8	105.1	89.6	98.1	105.1	0.2
17.5	104.2	1.6	105.8	104.0	88.8	97.0	104.0	0.2
18.0	103.6	1.1	104.7	102.9	88.7	96.3	103.3	0.2
18.5	103.6	0.7	104.3	101.9	88.5	95.7	102.7	0.8
19.0	103.1	0.0	103.1	101.0	88.0	95.2	102.2	0.1
19.5	103.2	0.0	103.2	100.0	87.9	95.1	102.1	0.1
20.0	103.3	0.0	103.3	99.9	88.0	95.4	102.4	0.1
20.5	104.2	0.0	104.2	100.9	88.7	96.4	103.4	0.1
21.0	104.2	0.0	104.2	101.1	88.7	96.5	103.5	0.1
21.5	103.4	0.0	103.4	100.3	87.7	95.6	102.6	0.1
22.0	103.2	0.0	103.2	100.0	87.7	95.3	102.3	0.1
22.5	102.3	0.0	102.3	98.9	87.1	94.3	101.3	0.1
23.0	100.8	0.0	100.8	97.1	85.9	92.8	99.8	0.1
23.5	99.2	0.0	99.2	95.1	84.6	91.2	98.2	0.1
24.0	97.5	0.0	97.5	93.1	83.0	89.5	96.5	0.1
24.5	96.1	0.6	96.7	91.2	82.0	88.2	95.2	0.5
25.0	94.3	0.6	94.9	89.3	80.3	86.6	93.6	0.5
25.5	93.0	0.0	93.0	87.7	79.4	85.5	92.5	0.1
26.0	91.8	0.0	91.8	85.9	78.1	84.3	91.3	0.1

MAXIMUM VALUES IN BANDS, PNLC =109.8

B-116

50	60	80	100	125	150	200	250	315	400
95.9	101.8	97.3	102.2	100.3	99.0	97.1	95.2	91.9	91.3

86.6	84.7	82.5	78.3	75.5	73.4	72.4	72.0	70.5	69.0
67.5	65.6	65.0	65.4						

SPECTRUM FOR MAX PNLT

86.9	101.7	97.0	102.2	100.3	98.9	96.5	90.7	85.4	84.0
83.7	83.8	82.5	77.3	75.5	72.2	70.3	66.5	63.9	62.2
61.9	62.8	64.0	65.4						

	TIME	MAX.	D10	I-10	D20	I-20	D/15+M	D/30+M
P. T.	8.5	1.7						
PNL	14.5	108.3	14.5	117.1	22.5	117.3	108.2	107.1
PNLT	14.5	109.9	14.0	118.1	21.0	118.3	109.6	108.4
A-LEV	11.5	94.2	14.5	102.5	21.5	102.6	94.1	92.8
N-LEV	14.0	108.7	14.0	117.3	21.0	117.4	108.4	107.2

EPNL =108.1

TSC CH-47C #28: FLYOVER, 150 KT., 500 FT.

T	PNL	P.T.	PNLT	OA	A-LEV	D-LEV	N-LEV	BAND #
0.0	87.7	0.0	87.7	80.3	73.1	80.3	87.3	0.1
0.5	88.4	0.6	89.0	82.2	73.7	81.0	88.0	0.6
1.0	88.7	0.8	89.5	83.2	74.1	81.3	88.3	0.6
1.5	88.9	0.6	89.5	83.4	74.4	81.5	88.5	0.6
2.0	89.2	0.7	89.9	84.1	74.7	81.7	88.7	0.6
2.5	89.1	0.6	89.7	84.6	74.9	81.6	88.6	0.6
3.0	89.5	0.0	89.5	86.0	74.7	82.0	89.0	0.1
3.5	90.5	0.0	90.5	88.1	75.4	83.1	90.1	0.1
4.0	93.0	0.0	93.0	90.9	76.9	85.0	92.0	0.1
4.5	95.1	0.0	95.1	93.7	78.3	87.2	94.2	0.1
5.0	97.6	0.0	97.6	96.7	81.1	90.0	97.0	0.1
5.5	99.6	0.6	100.2	99.3	83.3	92.5	99.5	0.2
6.0	101.7	0.7	102.4	101.6	85.8	94.8	101.8	0.2
6.5	104.0	0.9	104.9	103.9	88.3	97.2	104.2	0.2
7.0	105.8	1.0	106.8	105.9	90.3	99.3	106.3	0.2
7.5	107.7	1.0	108.7	107.5	92.8	101.2	108.2	0.2
8.0	109.2	0.9	110.1	108.7	94.8	102.8	109.8	0.2
8.5	109.4	0.8	110.2	108.8	95.2	103.1	110.1	0.2
9.0	109.1	0.6	109.7	108.6	95.0	102.9	109.9	0.2
9.5	108.3	0.0	108.3	107.6	93.8	101.8	108.8	0.1
10.0	107.7	0.0	107.7	107.0	93.0	100.9	107.9	0.1
10.5	107.1	0.6	107.7	106.4	92.1	100.2	107.2	0.2
11.0	107.0	1.0	108.0	106.6	91.8	100.1	107.1	0.2
11.5	107.3	1.2	108.5	106.8	92.0	100.3	107.3	0.2
12.0	107.3	1.4	108.7	107.1	92.2	100.6	107.6	0.2
12.5	107.4	1.6	109.0	107.3	92.1	100.6	107.6	0.2
13.0	107.3	1.7	109.0	107.3	91.7	100.4	107.4	0.2
13.5	106.7	1.7	108.4	106.8	91.0	99.8	106.8	0.2
14.0	105.9	1.6	107.5	106.0	90.2	98.8	105.8	0.2
14.5	105.1	1.5	106.6	104.5	89.8	97.7	104.7	0.2
15.0	104.8	0.9	105.7	103.2	90.0	97.2	104.2	0.2
15.5	105.0	0.7	105.7	102.3	90.1	97.1	104.1	0.2
16.0	104.8	0.7	105.5	101.3	89.8	96.8	103.8	0.2
16.5	104.5	0.0	104.5	101.0	89.5	96.8	103.8	0.1
17.0	104.7	0.0	104.2	100.5	89.0	96.3	103.3	0.1
17.5	104.1	0.0	104.1	100.3	89.0	96.1	103.1	0.1
18.0	103.4	0.0	103.4	99.4	88.9	95.5	102.5	0.1
18.5	102.2	0.0	102.2	97.9	88.1	94.4	101.4	0.1
19.0	100.6	0.0	100.6	96.0	86.7	92.8	99.8	0.1
19.5	99.0	0.0	99.0	94.3	85.2	91.3	98.3	0.1
20.0	97.4	0.0	97.4	92.5	83.7	89.7	96.7	0.1
20.5	95.7	0.0	95.7	90.8	82.0	88.0	95.0	0.1
21.0	94.5	0.0	94.5	89.4	80.6	86.7	93.7	0.1
21.5	94.2	0.0	94.2	88.7	80.1	86.2	93.2	0.1
22.0	93.6	0.0	93.6	87.7	79.7	85.6	92.6	0.1
22.5	92.0	0.0	92.0	86.2	78.1	84.2	91.2	0.1
23.0	91.3	0.0	91.3	85.5	77.7	83.7	90.7	0.1
23.5	91.6	0.0	91.6	85.2	78.4	83.9	90.9	0.1
24.0	90.6	0.0	90.6	84.0	77.3	83.0	90.0	0.1

MAXIMUM VALUES IN BANDS, PNLC =110.5

50	63	80	100	125	160	200	250	315	400
94.9	102.8	99.5	102.8	101.1	99.9	97.6	96.1	92.7	91.1
86.7	84.1	81.9	78.3	76.0	74.4	73.8	73.5	72.8	70.9
69.7	67.9	66.0	65.4						

SPECTRUM FOR MAX PNLT

B-118

92.0	100.7	99.3	102.8	100.9	99.8	97.2	96.0	92.7	90.6
85.6	82.3	78.8	76.5	75.2	72.2	68.5	65.9	62.9	61.6
61.5	62.5	63.9	65.1						

	TIME	MAX.	D10	I-10	D20	I-20	D/15+M	D/30+M
P. T.	13.0	1.7						
PNL	8.5	109.4	14.5	117.7	21.5	117.9	109.3	108.0
PNLT	8.5	110.2	14.0	118.6	21.0	118.7	109.9	108.7
A-LEV	8.5	95.2	14.0	102.8	21.0	103.0	94.9	93.7
N-LEV	8.5	110.1	13.5	117.8	20.5	118.0	109.6	108.4

EPNL =108.6

TSC CH-47C #29: FLYOVER, 150 KT., 500 FT.

T	PNL	P.T.	PNLT	DA	A-LEV	D-LEV	N-LEV	BAND #
0.0	87.2	0.0	87.2	79.8	72.5	80.0	87.0	0.1
0.5	87.5	0.0	87.5	80.6	72.7	80.3	87.3	0.1
1.0	87.7	0.5	88.2	81.1	73.0	80.5	87.5	0.7
1.5	88.1	0.6	88.7	81.8	73.4	80.8	87.8	0.4
2.0	88.4	0.6	89.0	82.7	73.7	81.2	88.2	0.4
2.5	88.6	0.6	89.2	83.3	73.8	81.3	88.3	0.4
3.0	88.8	1.0	89.8	83.8	74.0	81.5	88.5	0.3
3.5	88.8	0.6	89.4	83.6	74.2	81.6	88.6	0.3
4.0	89.0	0.0	89.0	83.5	74.6	81.7	88.7	0.1
4.5	89.1	0.0	89.1	83.5	74.7	81.7	88.7	0.1
5.0	89.3	0.5	89.8	84.1	75.0	82.0	89.0	0.4
5.5	89.7	0.0	89.7	84.3	75.2	82.1	89.1	0.1
6.0	89.9	0.5	90.4	84.4	75.4	82.2	89.2	0.5
6.5	90.2	0.0	90.2	84.9	75.9	82.6	89.6	0.1
7.0	90.5	0.0	90.5	85.7	76.4	83.1	90.1	0.1
7.5	92.2	0.0	92.2	87.6	77.6	84.3	91.3	0.1
8.0	94.2	0.7	94.9	90.0	79.6	86.0	93.0	0.7
8.5	95.5	0.6	96.1	91.9	81.2	87.4	94.4	0.7
9.0	96.9	0.6	97.5	93.9	82.3	88.7	95.7	1.0
9.5	98.3	0.6	98.9	96.3	83.8	90.4	97.4	0.2
10.0	100.1	0.9	101.0	98.6	86.0	92.6	99.6	0.2
10.5	102.0	0.9	102.9	101.1	87.2	94.4	101.4	0.2
11.0	104.7	0.9	105.6	103.8	89.1	97.1	104.1	0.2
11.5	106.1	0.9	107.0	105.7	90.1	98.9	105.9	0.2
12.0	107.8	0.9	108.7	107.2	92.1	100.6	107.6	0.2
12.5	109.5	1.1	110.6	108.2	94.7	102.2	109.2	0.2
13.0	110.4	1.3	111.7	108.9	96.1	103.3	110.3	0.2
13.5	111.1	1.3	112.4	109.4	96.9	104.1	111.1	0.2
14.0	111.8	1.3	113.1	110.2	97.7	104.9	111.9	0.2
14.5	112.1	1.2	113.3	110.4	97.9	105.2	112.2	0.2
15.0	111.8	1.2	113.0	110.3	97.4	104.9	111.9	0.2
15.5	111.6	1.2	112.8	110.0	97.1	104.5	111.5	0.2
16.0	111.3	1.0	112.3	109.9	96.6	104.1	111.1	0.2
16.5	110.9	1.0	111.9	109.6	96.1	103.7	110.7	0.2
17.0	110.2	1.1	111.3	109.2	95.4	103.1	110.1	0.2
17.5	109.2	1.4	110.6	108.5	94.1	102.0	109.0	0.2
18.0	108.1	1.5	109.6	107.6	92.9	100.9	107.9	0.2
18.5	107.0	1.2	108.2	106.6	91.4	99.6	106.6	0.2
19.0	105.8	0.6	106.4	105.4	90.2	98.3	105.3	0.2
19.5	105.1	0.0	105.1	104.5	89.7	97.6	104.6	0.1
20.0	105.5	0.5	106.0	103.5	90.5	97.7	104.7	1.0
20.5	105.9	0.0	105.9	102.6	90.7	97.8	104.8	0.1
21.0	105.8	0.0	105.8	102.2	90.8	97.9	104.9	0.1
21.5	105.8	0.0	105.8	102.3	90.7	97.9	104.9	0.1
22.0	105.2	0.0	105.2	101.7	90.2	97.4	104.4	0.1
22.5	104.8	0.0	104.8	101.1	90.1	96.9	103.9	0.1
23.0	104.2	0.0	104.2	100.3	89.7	96.3	103.3	0.1
23.5	102.7	0.0	102.7	98.5	88.5	94.9	101.9	0.1
24.0	100.9	0.0	100.9	96.5	86.7	93.0	100.0	0.1
24.5	99.2	0.0	99.2	94.5	85.1	91.3	98.3	0.1
25.0	97.3	0.0	97.3	92.6	83.3	89.5	96.5	0.1
25.5	95.7	0.0	95.7	90.8	81.8	87.9	94.9	0.1
26.0	94.2	0.0	94.2	89.2	80.3	86.5	93.5	0.1
26.5	93.7	0.0	93.7	88.2	79.8	85.8	92.8	0.1
27.0	93.7	0.0	93.7	87.8	79.9	85.6	92.6	0.1
27.5	93.0	0.0	93.0	86.9	79.1	85.0	92.0	0.1
28.0	92.4	0.0	92.4	86.2	78.6	84.4	91.4	0.1
28.5	91.4	0.0	91.4	85.3	77.5	83.5	90.5	0.1
29.0	90.7	0.0	90.7	84.4	77.2	83.0	90.0	0.1



AD-A039 715

BOLT BERANEK AND NEWMAN INC CANOGA PARK CALIF  
PHYSICAL ANALYSIS OF THE IMPULSIVE ASPECTS OF HELICOPTER NOISE.(U)  
APR 77 W J GALLOWAY

F/G 1/3

WI-77-3683-1

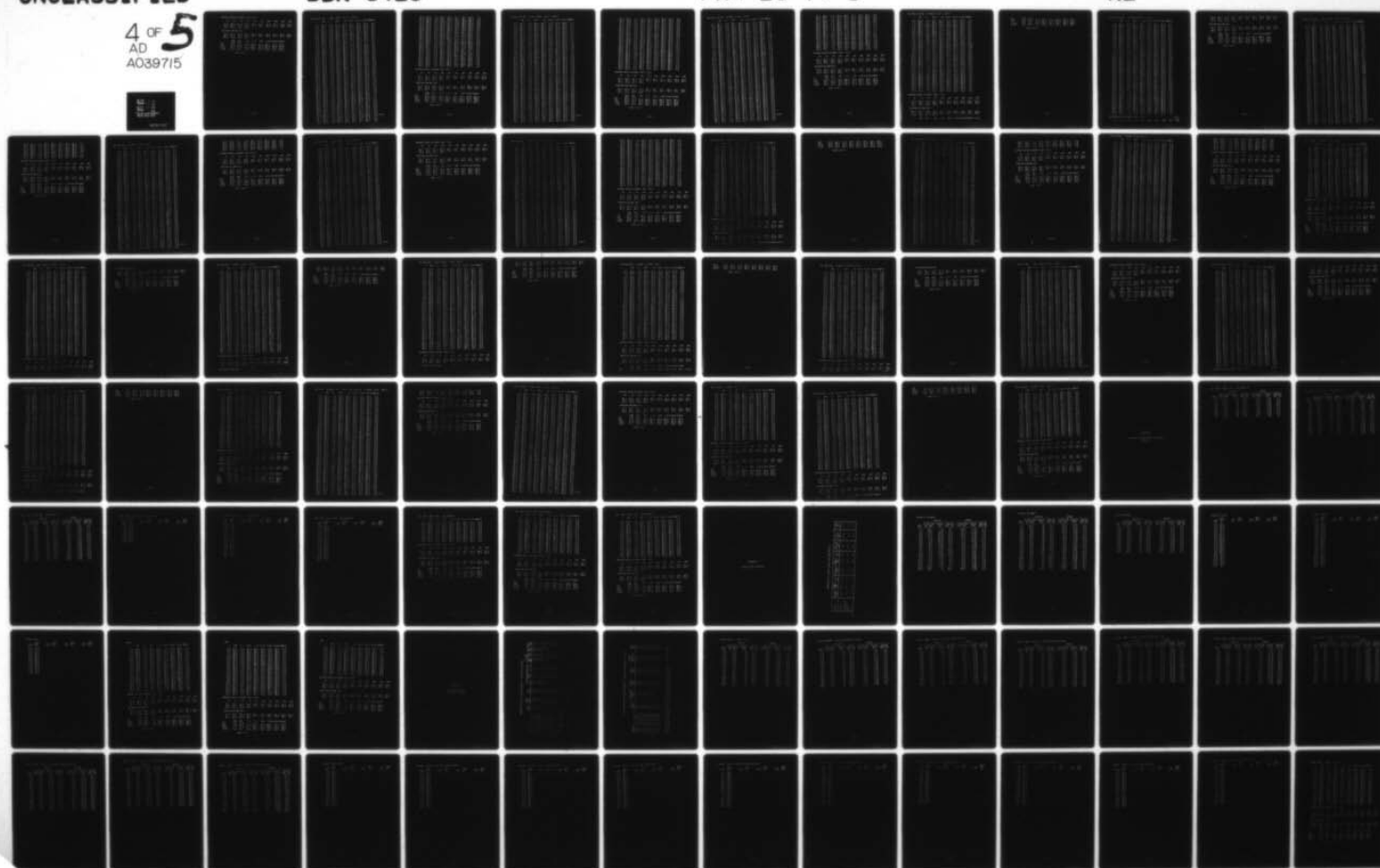
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NL

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MAXIMUM VALUES IN BANDS, PNLC =112.7

50	63	80	100	125	160	200	250	315	400
99.2	103.2	100.5	104.7	102.6	102.2	99.5	97.2	93.8	93.2
90.2	88.9	87.2	84.3	82.6	80.5	78.8	75.0	73.8	71.9
70.1	67.7	65.9	65.6						

SPECTRUM FOR MAX PNLT

90.6	102.1	99.2	104.7	102.6	102.2	99.5	97.2	93.5	93.2
89.3	87.3	85.2	84.3	82.0	80.0	78.8	74.7	70.9	68.2
64.9	64.0	64.5	65.1						

	TIME	MAX.	D10	I-10	D20	I-20	D/15+M	D/30+M
P. T.	18.0	1.5						
PNL	14.5	112.1	13.5	119.9	21.5	120.1	111.6	110.7
PNLT	14.5	113.3	13.0	120.9	20.0	121.1	112.7	111.5
A-LEV	14.5	97.9	13.5	105.2	21.0	105.4	97.4	96.4
N-LEV	14.5	112.2	13.0	119.7	20.0	119.9	111.6	110.4

EPNL =110.9

TSC CH-47C #35: 3 DEG. APRCH., 60 KT., 400 FT.

T	PNL	P.T.	PNLT	OA	A-LEV	D-LEV	N-LEV	BAND #
0.0	96.6	0.0	96.6	93.8	82.1	89.1	96.1	0.1
0.5	96.4	0.0	96.4	93.7	82.0	89.0	96.0	0.1
1.0	96.3	0.0	96.3	93.7	81.7	88.9	95.9	0.1
1.5	96.1	0.0	96.1	93.4	81.3	88.5	95.5	0.1
2.0	96.1	0.0	96.1	93.5	81.1	88.4	95.4	0.1
2.5	95.9	0.0	95.9	93.3	80.7	88.2	95.2	0.1
3.0	95.4	0.0	95.4	92.8	80.2	87.7	94.7	0.1
3.5	94.9	0.0	94.9	91.9	79.8	87.1	94.1	0.1
4.0	94.3	0.0	94.3	91.0	79.4	86.5	93.5	0.1
4.5	93.6	0.0	93.6	90.5	78.5	85.7	92.7	0.1
5.0	93.1	0.0	93.1	90.4	77.7	85.3	92.3	0.1
5.5	92.4	0.0	92.4	89.8	77.1	84.7	91.7	0.1
6.0	91.9	0.0	91.9	89.3	76.4	84.1	91.1	0.1
6.5	91.5	0.0	91.5	89.3	75.4	83.6	90.6	0.1
7.0	91.2	0.0	91.2	88.9	75.1	83.3	90.3	0.1
7.5	90.8	0.0	90.8	88.4	75.0	83.0	90.0	0.1
8.0	90.8	0.0	90.8	88.4	75.0	83.0	90.0	0.1
8.5	90.9	0.0	90.9	88.6	75.0	83.0	90.0	0.1
9.0	90.7	0.0	90.7	87.8	75.3	82.9	89.9	0.1
9.5	90.9	0.6	91.5	88.1	75.3	83.1	90.1	0.7
10.0	91.5	0.9	92.4	89.0	75.5	83.5	90.5	0.7
10.5	92.1	1.1	93.2	89.6	76.3	84.1	91.1	0.7
11.0	92.1	1.2	93.3	88.6	76.5	83.8	90.8	0.7
11.5	91.7	1.2	92.9	88.1	76.2	83.6	90.6	0.7
12.0	91.9	0.6	92.5	88.1	76.3	83.8	90.8	0.3
12.5	91.9	0.5	92.4	87.8	76.3	83.7	90.7	0.3
13.0	92.0	0.0	92.0	88.0	76.5	83.9	90.9	0.1
13.5	92.8	0.0	92.8	89.0	77.5	84.8	91.8	0.1
14.0	93.5	0.5	94.0	89.7	78.4	85.4	92.4	0.6
14.5	93.9	0.5	94.4	90.4	78.6	85.7	92.7	0.6
15.0	93.8	0.0	93.8	91.0	78.4	85.8	92.8	0.1
15.5	93.6	0.0	93.6	90.8	78.4	85.5	92.5	0.1
16.0	93.7	0.7	94.4	90.4	78.5	85.4	92.4	0.7
16.5	93.6	0.7	94.3	90.2	78.6	85.4	92.4	0.7
17.0	94.2	1.0	95.2	91.0	79.5	86.1	93.1	1.5
17.5	95.2	0.7	95.9	92.4	80.3	87.0	94.0	0.7
18.0	95.4	0.9	96.3	92.8	80.7	87.3	94.3	0.7
18.5	95.1	0.9	96.0	92.1	80.5	87.0	94.0	0.7
19.0	95.0	1.1	96.1	92.0	80.6	87.0	94.0	1.4
19.5	95.6	1.2	96.8	92.7	81.0	87.6	94.6	1.4
20.0	95.8	1.1	96.9	92.6	81.9	88.1	95.1	1.4
20.5	96.5	0.7	97.2	92.9	82.6	88.6	95.6	1.0
21.0	98.0	1.2	99.2	93.7	84.2	89.8	96.8	1.4
21.5	97.8	1.2	99.0	93.4	83.9	89.5	96.5	1.1
22.0	96.7	1.0	97.7	92.1	82.8	88.4	95.4	1.1
22.5	96.8	0.0	96.8	92.2	82.8	88.4	95.4	0.1
23.0	97.3	0.0	97.3	92.3	83.5	89.0	96.0	0.1
23.5	98.0	0.8	98.8	92.7	84.4	89.7	96.7	0.9
24.0	99.4	1.1	100.5	94.9	85.5	91.1	98.1	0.9
24.5	99.1	0.9	100.0	95.4	85.1	91.0	98.0	0.9
25.0	99.3	0.8	100.1	96.2	85.2	91.4	98.4	0.4
25.5	99.8	0.8	100.6	96.1	85.7	91.7	98.7	0.4
26.0	100.5	0.9	101.4	96.3	86.5	92.4	99.4	0.4
26.5	101.2	0.9	102.1	97.1	87.3	93.1	100.1	0.4
27.0	102.0	0.9	102.9	97.9	88.3	93.9	100.9	0.4
27.5	101.9	0.9	102.8	97.4	88.1	93.8	100.8	0.4
28.0	102.3	1.2	103.5	97.6	88.6	94.2	101.2	1.1
28.5	102.8	0.8	103.6	97.5	89.2	94.7	101.7	0.2
29.0	104.0	0.5	104.5	98.8	90.5	96.1	103.1	0.6

B-122

29.5	104.8	0.6	105.4	99.3	91.1	96.9	103.9	1.0
30.0	105.9	0.8	106.7	100.4	92.3	98.1	105.1	1.0
30.5	106.0	0.9	106.9	101.2	92.6	98.4	105.4	0.6
31.0	105.9	0.9	106.8	101.5	92.4	98.2	105.2	0.6
31.5	106.0	0.6	106.6	101.7	92.8	98.5	105.5	0.9
32.0	105.8	0.7	106.5	101.6	92.4	98.3	105.3	0.9
32.5	106.0	0.6	106.6	102.2	92.5	98.6	105.6	0.9
33.0	106.6	0.0	106.6	103.3	93.2	99.6	106.6	0.1
33.5	106.4	0.0	106.4	103.3	93.0	99.5	106.5	0.1
34.0	106.1	0.0	106.1	103.1	92.3	99.1	106.1	0.1
34.5	104.8	0.0	104.8	101.7	90.9	97.6	104.6	0.1
35.0	104.3	0.0	104.3	101.1	90.6	97.1	104.1	0.1
35.5	104.5	0.0	104.5	101.2	91.1	97.5	104.5	0.1
36.0	104.5	0.6	105.1	100.6	90.9	97.1	104.1	0.9
36.5	103.9	0.7	104.6	99.6	90.4	96.4	103.4	0.2
37.0	102.4	0.9	103.3	97.9	88.8	94.8	101.8	0.2
37.5	101.1	0.9	102.0	96.5	87.6	93.5	100.5	0.2
38.0	100.1	0.0	100.1	95.6	86.6	92.4	99.4	0.1
38.5	99.1	0.0	99.1	95.1	85.6	91.4	98.4	0.1
39.0	98.5	1.0	99.5	94.9	84.8	90.7	97.7	1.6
39.5	98.1	0.0	98.1	94.3	84.3	90.1	97.1	0.1
40.0	97.3	1.0	98.3	93.9	83.1	89.2	96.2	1.6
40.5	96.0	0.0	96.0	92.9	81.7	87.9	94.9	0.1
41.0	94.7	1.0	95.7	91.8	80.4	86.7	93.7	1.6
41.5	93.5	1.4	94.9	90.9	79.4	85.8	92.8	1.6
42.0	92.6	1.4	94.0	90.2	78.4	85.0	92.0	1.6
42.5	91.4	1.2	92.6	89.3	77.1	83.9	90.9	1.6
43.0	90.8	1.3	92.1	88.8	76.5	83.4	90.4	1.6
43.5	90.3	1.5	91.8	88.0	75.9	82.9	89.9	1.6
44.0	89.9	1.4	91.3	87.5	75.8	82.7	89.7	1.6

MAXIMUM VALUES IN BANDS, PNLC =107.9

50	63	80	100	125	160	200	250	315	400
92.7	91.7	89.2	94.7	97.9	96.9	94.1	93.3	92.7	90.8
87.1	83.1	82.5	80.7	80.1	78.4	76.7	74.7	71.9	69.6
66.9	65.7	65.2	65.6						

SPECTRUM FOR MAX PNLT

91.2	86.3	86.8	83.0	91.3	95.7	93.8	88.9	86.4	90.8
84.1	82.9	82.5	80.3	79.6	78.0	76.0	73.8	70.9	68.7
66.2	65.2	65.0	65.6						

	TIME	MAX.	D10	I-10	D20	I-20	D/15+M	D/30+M
P. T.	43.5	1.5						
PNL	33.0	106.6	20.0	116.0	44.0	116.6	107.8	108.3
PNLT	30.5	106.9	18.0	116.4	44.0	117.1	107.7	108.6
A-LEV	33.0	93.2	17.5	102.2	44.0	102.8	93.9	94.9
N-LEV	33.0	106.6	17.0	115.3	44.0	116.0	107.1	108.3

EPNL =106.4



TSC BELL 212 #27: 9 DEG. APRCH., 58 KT., 420 FT.

T	PNI	P.T.	PNLT	OA	A-LEV	D-LEV	N-LEV	BAND #
0.0	84.1	1.2	85.3	83.3	71.8	77.5	84.5	1.1
0.5	84.6	1.3	85.9	83.6	72.4	78.0	85.0	1.1
1.0	84.3	1.3	85.6	83.7	71.8	77.7	84.7	1.1
1.5	83.3	1.2	84.5	83.3	70.3	76.8	83.8	1.1
2.0	82.2	1.2	83.4	83.2	68.9	76.0	83.0	1.1
2.5	81.4	1.2	82.6	83.4	67.7	75.6	82.6	1.1
3.0	81.1	1.1	82.2	83.7	67.1	75.5	82.5	1.1
3.5	81.0	1.2	82.2	83.5	67.1	75.4	82.4	1.1
4.0	81.5	1.1	82.6	83.6	67.9	75.7	82.7	1.1
4.5	82.4	1.3	83.7	83.8	69.0	76.3	83.3	1.1
5.0	83.7	1.1	84.8	84.0	70.8	77.3	84.3	1.1
5.5	84.5	1.2	85.7	84.3	71.8	78.0	85.0	1.1
6.0	84.9	1.2	86.1	84.4	72.2	78.2	85.2	1.1
6.5	85.5	1.0	86.5	84.7	72.8	78.7	85.7	1.0
7.0	86.6	1.1	87.7	85.2	74.1	79.8	86.8	1.0
7.5	86.3	1.2	88.0	85.3	74.4	80.0	87.0	1.1
8.0	87.1	1.2	88.3	85.5	74.6	80.2	87.2	1.0
8.5	87.1	1.2	88.3	85.6	74.5	80.2	87.2	1.1
9.0	86.8	1.3	88.1	85.9	74.3	80.1	87.1	1.1
9.5	86.3	1.3	87.6	85.8	73.6	79.7	86.7	1.1
10.0	86.2	0.6	86.8	85.9	73.3	79.5	86.5	1.0
10.5	86.5	1.2	87.7	86.1	73.7	79.8	86.8	1.3
11.0	86.8	1.3	88.1	86.3	74.1	80.1	87.1	1.3
11.5	87.3	1.6	88.9	86.3	74.7	80.4	87.4	1.3
12.0	87.8	1.5	89.3	86.3	75.3	80.9	87.9	1.3
12.5	88.5	1.6	90.1	86.7	76.0	81.5	88.5	1.3
13.0	89.0	1.7	90.7	86.7	76.4	81.8	88.8	1.3
13.5	89.2	1.6	90.8	86.9	76.7	82.1	89.1	1.3
14.0	89.4	1.4	90.8	87.2	76.9	82.4	89.4	1.3
14.5	89.3	1.2	90.5	87.7	76.8	82.5	89.5	1.3
15.0	89.6	1.3	90.9	88.0	77.1	82.9	89.9	1.3
15.5	89.5	1.3	90.8	88.0	77.2	83.0	90.0	1.3
16.0	89.9	0.8	90.7	88.1	77.3	83.1	90.1	1.0
16.5	90.3	0.6	90.9	88.6	77.9	83.6	90.6	0.2
17.0	91.3	0.6	91.9	89.0	79.2	84.8	91.8	0.2
17.5	92.1	0.7	92.8	89.3	80.1	85.6	92.6	1.0
18.0	91.7	1.0	92.7	89.1	79.7	85.2	92.2	1.2
18.5	91.6	0.6	92.2	89.0	79.4	85.0	92.0	0.2
19.0	91.8	0.6	92.4	89.0	79.5	85.1	92.1	0.2
19.5	92.3	0.5	92.8	89.3	80.1	85.7	92.7	0.2
20.0	92.6	0.6	93.2	89.4	80.2	85.8	92.8	0.2
20.5	92.8	0.6	93.4	89.6	80.3	86.0	93.0	0.2
21.0	93.3	0.6	93.9	89.9	80.7	86.4	93.4	0.2
21.5	92.9	0.6	93.5	89.5	80.1	85.8	92.8	0.8
22.0	93.6	0.6	94.2	90.0	80.7	86.5	93.5	0.2
22.5	94.1	0.7	94.8	90.3	81.3	87.0	94.0	0.2
23.0	94.0	0.7	94.7	90.3	81.0	86.8	93.8	0.2
23.5	94.3	0.7	95.0	90.4	81.3	87.1	94.1	0.2
24.0	94.5	0.7	95.2	90.5	81.3	87.1	94.1	0.2
24.5	94.4	0.8	95.2	90.5	81.1	86.9	93.9	0.2
25.0	95.4	0.8	96.2	91.1	82.0	87.8	94.8	0.2
25.5	95.9	0.9	96.8	91.5	82.6	88.4	95.4	0.2
26.0	96.1	1.0	97.1	91.9	82.9	88.8	95.8	0.2
26.5	95.7	1.1	96.8	91.8	82.6	88.5	95.5	0.2
27.0	96.1	1.2	97.3	92.3	82.8	88.9	95.9	0.2
27.5	96.6	1.2	97.8	92.3	83.0	89.2	96.2	0.2
28.0	97.0	1.2	98.2	92.8	83.3	89.6	96.6	0.2
28.5	96.7	1.3	98.0	92.7	82.7	89.2	96.2	0.2
29.0	96.6	1.3	97.9	92.7	82.3	89.0	96.0	0.2

B-124



29.5	95.6	1.3	96.9	92.0	81.5	88.2	95.2	0.2
30.0	95.1	0.7	95.8	91.4	80.8	87.5	94.5	0.9
30.5	94.8	0.7	95.5	90.9	80.5	87.1	94.1	0.9
31.0	94.8	0.6	95.4	91.1	80.3	87.0	94.0	0.9
31.5	95.0	0.5	95.5	91.5	80.6	87.3	94.3	0.4
32.0	94.6	0.6	95.2	90.8	80.0	86.8	93.8	0.6
32.5	94.5	0.6	95.1	91.1	80.1	86.9	93.9	0.4
33.0	94.4	0.6	95.0	90.7	79.9	86.7	93.7	0.9
33.5	94.1	0.8	94.9	90.4	79.6	86.5	93.5	0.9
34.0	94.6	0.8	95.4	91.0	80.2	87.0	94.0	0.9
34.5	94.5	0.7	95.2	90.9	80.2	86.9	93.9	0.9
35.0	94.1	0.0	94.1	90.3	80.0	86.6	93.6	0.1
35.5	93.8	0.0	93.8	89.6	79.7	86.2	93.2	0.1
36.0	93.8	0.0	93.8	89.1	79.6	86.0	93.0	0.1
36.5	93.3	1.1	94.4	88.4	79.4	85.7	92.7	1.7
37.0	92.9	0.0	92.9	87.9	79.2	85.4	92.4	0.1
37.5	92.6	0.0	92.6	87.6	79.2	85.2	92.2	0.1
38.0	92.1	0.0	92.1	87.3	78.7	84.7	91.7	0.1
38.5	91.1	0.0	91.1	86.2	77.7	83.7	90.7	0.1
39.0	90.1	1.3	91.4	85.0	76.6	82.6	89.6	1.7
39.5	89.7	1.5	91.2	84.4	76.2	82.2	89.2	1.7
40.0	88.7	1.8	90.5	83.5	75.3	81.3	88.3	1.7
40.5	88.2	3.0	91.2	82.6	74.9	81.0	88.0	1.7
41.0	86.9	2.7	89.6	81.6	73.6	79.7	86.7	1.7
41.5	88.6	1.6	90.2	81.4	75.4	81.3	88.3	1.7
42.0	88.5	1.5	90.0	81.6	75.4	81.2	88.2	1.7
42.5	86.9	1.4	88.3	80.9	73.8	79.6	86.6	1.7
43.0	85.3	1.3	86.6	79.9	72.3	78.1	85.1	1.7
43.5	84.0	1.2	85.2	79.1	70.9	76.9	83.9	1.6
44.0	83.1	0.0	83.1	78.6	70.1	76.1	83.1	0.1
44.5	82.9	0.5	83.4	78.5	69.7	75.9	82.9	0.4

MAXIMUM VALUES IN BANDS, PNLC = 98.5

50	63	80	100	125	160	200	250	315	400
82.4	84.4	79.1	84.5	85.2	86.6	87.1	85.6	83.6	80.5
75.0	73.0	70.0	68.7	67.6	67.6	67.5	64.0	61.8	59.0
56.5	56.2	60.5	63.0						

SPECTRUM FOR MAX PNLT

81.5	83.0	70.7	71.9	81.4	85.7	87.1	82.5	81.7	80.3
73.0	71.9	69.8	67.8	67.6	65.6	64.9	63.9	61.1	58.1
55.2	52.9	53.5	53.0						

	TIME	MAX.	D10	I-10	D20	I-20	D/15+M	D/30+M
P. T.	40.5	3.0						
PNL	28.0	97.0	30.0	108.2	44.5	108.5	100.0	98.7
PNLT	28.0	98.2	32.0	109.2	44.5	109.4	101.5	99.9
A-LEV	28.0	83.3	33.0	94.9	44.5	95.1	86.7	85.0
N-LEV	28.0	96.6	32.5	108.0	44.5	108.2	100.0	98.3

EPNL = 99.2

TSC BELL 212 #31: FLYOVER, 61 KT., 500 FT.

T	PNL	P.T.	PNLT	OA	A-LEV	D-LEV	N-LEV	BAND #
0.0	83.2	0.0	83.2	85.2	68.1	77.5	84.5	0.1
0.5	83.1	0.0	83.1	85.0	68.0	77.3	84.3	0.1
1.0	83.0	0.0	83.0	85.0	68.1	77.3	84.3	0.1
1.5	83.0	0.0	83.0	84.9	68.3	77.1	84.1	0.1
2.0	82.6	1.7	84.3	84.6	68.3	76.9	83.9	1.1
2.5	82.7	1.7	84.4	84.9	68.1	77.0	84.0	1.1
3.0	82.4	1.8	84.2	85.0	67.8	77.0	84.0	1.1
3.5	82.5	1.8	84.3	85.1	67.9	77.1	84.1	1.1
4.0	82.7	1.2	83.9	85.0	68.2	77.1	84.1	1.5
4.5	83.3	0.5	83.8	85.1	69.2	77.5	84.5	1.0
5.0	84.3	1.9	86.2	85.4	71.1	78.4	85.4	1.1
5.5	85.2	1.9	87.1	85.9	72.2	79.1	86.1	1.1
6.0	85.2	1.8	87.0	85.8	72.3	79.1	86.1	1.1
6.5	85.2	1.9	87.1	86.1	72.1	79.1	86.1	1.1
7.0	85.3	0.0	85.3	86.2	72.3	79.2	86.2	0.1
7.5	86.2	1.0	87.2	86.5	73.4	79.8	86.8	1.4
8.0	87.4	1.2	88.6	86.8	74.7	80.6	87.6	1.4
8.5	87.6	1.1	88.7	87.3	74.7	80.9	87.9	1.4
9.0	88.3	1.1	89.4	87.6	75.2	81.3	88.3	1.1
9.5	88.9	1.1	90.0	88.0	75.6	81.8	88.8	1.1
10.0	89.2	1.1	90.3	88.0	75.9	82.0	89.0	1.0
10.5	89.5	1.0	90.5	87.9	76.1	82.1	89.1	1.0
11.0	89.6	0.7	90.3	88.0	76.2	82.2	89.2	1.0
11.5	89.5	0.7	90.2	87.9	76.1	82.1	89.1	1.0
12.0	88.8	0.6	89.4	87.5	75.2	81.5	88.5	1.0
12.5	87.7	0.6	88.3	87.1	74.1	80.6	87.6	1.0
13.0	87.1	0.0	87.1	86.7	73.5	80.1	87.1	0.1
13.5	87.5	1.2	88.7	86.9	74.1	80.6	87.6	1.2
14.0	88.6	1.1	89.7	87.2	75.1	81.3	88.3	1.2
14.5	88.9	0.0	88.9	87.2	75.4	81.6	88.6	0.1
15.0	89.4	0.0	89.4	87.6	76.0	82.0	89.0	0.1
15.5	89.4	0.0	89.4	87.5	76.1	82.1	89.1	0.1
16.0	89.7	1.0	90.7	87.1	76.3	82.2	89.2	1.1
16.5	90.1	0.5	90.6	86.9	76.5	82.4	89.4	0.6
17.0	89.7	0.6	90.3	86.4	76.1	82.1	89.1	0.6
17.5	89.6	0.5	90.1	86.3	75.8	82.1	89.1	0.8
18.0	90.0	0.7	90.7	86.1	76.4	82.5	89.5	0.6
18.5	90.1	0.8	90.9	86.0	76.6	82.7	89.7	0.6
19.0	90.1	0.8	90.9	85.9	76.7	82.8	89.8	0.6
19.5	90.4	0.8	91.2	85.9	77.4	83.3	90.3	0.6
20.0	90.1	0.6	90.7	85.5	77.2	83.1	90.1	0.2
20.5	90.1	0.6	90.7	85.2	77.0	82.9	89.9	0.2
21.0	90.6	0.7	91.3	85.4	77.2	83.2	90.2	0.2
21.5	90.5	0.7	91.2	85.2	77.2	83.1	90.1	0.9
22.0	91.0	0.8	91.8	85.6	77.6	83.5	90.5	0.9
22.5	91.3	0.7	92.0	85.8	78.0	83.7	90.7	0.4
23.0	90.4	0.8	91.2	85.1	77.1	82.8	89.8	0.4
23.5	89.9	0.9	90.8	84.5	76.6	82.3	89.3	0.4
24.0	89.4	1.1	90.5	84.0	75.9	81.6	88.6	0.4
24.5	88.8	1.3	90.1	83.4	75.3	81.0	88.0	0.4
25.0	88.5	1.5	90.0	83.0	75.0	80.8	87.8	0.4
25.5	88.0	1.6	89.6	82.5	74.2	80.2	87.2	0.4
26.0	87.7	1.7	89.4	82.0	74.1	80.1	87.1	0.4
26.5	87.4	1.5	88.9	81.6	74.0	79.9	86.9	0.4
27.0	87.3	1.5	88.8	81.4	73.8	79.6	86.6	0.4
27.5	87.1	1.3	88.4	81.3	73.8	79.4	86.4	0.4
28.0	87.1	1.1	88.2	81.5	73.9	79.5	86.5	0.6
28.5	87.0	0.9	87.9	81.8	73.9	79.5	86.5	0.6
29.0	86.7	0.8	87.5	81.3	73.7	79.3	86.3	0.6

B-126

29.5	86.6	0.8	87.4	80.7	73.7	79.3	86.3	0.6
30.0	85.7	1.3	87.0	79.8	72.8	78.5	85.5	0.6
30.5	86.1	1.3	87.4	79.5	73.1	78.9	85.9	0.6
31.0	86.5	1.2	87.7	79.2	73.3	79.2	86.2	0.6
31.5	85.7	1.2	86.9	79.3	72.6	78.5	85.5	0.6
32.0	85.5	1.2	86.7	79.2	72.5	78.3	85.3	1.6
32.5	85.4	1.4	86.8	78.3	72.3	78.2	85.2	1.1
33.0	84.8	1.6	86.4	78.0	71.8	77.7	84.7	1.1
33.5	83.8	1.8	85.6	77.3	70.9	76.9	83.9	1.1
34.0	83.1	1.8	84.9	77.0	70.2	76.2	83.2	1.1
34.5	82.7	1.3	84.0	77.2	69.7	75.8	82.8	1.1
35.0	82.8	0.0	82.8	76.8	69.6	75.9	82.9	0.1
35.5	81.5	0.5	82.0	76.3	68.3	74.6	81.6	0.7
36.0	81.4	0.5	81.9	76.2	68.0	74.4	81.4	0.7
36.5	81.1	1.3	82.4	75.7	68.0	74.1	81.1	1.2
37.0	81.1	1.2	82.3	75.5	67.7	74.0	81.0	1.2
37.5	82.3	1.5	83.8	75.6	69.0	75.3	82.3	1.6
38.0	81.4	1.5	82.9	74.6	68.2	74.4	81.4	1.6
38.5	79.7	1.7	81.4	74.1	66.3	72.6	79.6	1.6
39.0	78.2	1.7	79.9	73.9	64.5	70.9	77.9	1.6
39.5	77.1	1.5	78.6	73.1	63.5	69.8	76.8	1.6

MAXIMUM VALUES IN BANDS, PNLC = 93.5

	50	63	80	100	125	160	200	250	315	400
83.0	83.1	78.8	76.0	78.2	80.1	77.5	77.8	76.3	77.0	
73.0	68.8	66.9	68.2	67.2	65.3	64.8	62.5	59.9	57.8	
55.3	54.2	56.2	57.9							

SPECTRUM FOR MAX PNLT

73.6	73.4	63.4	75.0	78.2	80.1	73.6	73.3	75.5	69.8
71.3	68.2	66.9	68.2	67.2	65.3	63.6	61.8	59.9	57.6
55.3	54.2	56.0	56.6						

	TIME	MAX.	D10	I-10	D20	I-20	D/15+M	D/30+M
P. T.	5.0	1.9						
PNL	22.5	91.3	36.5	103.4	39.5	103.4	95.2	92.5
PNLT	22.5	92.0	35.5	104.3	39.5	104.4	95.7	93.2
A-LEV	22.5	78.0	32.5	89.9	39.5	90.1	81.4	79.2
N-LEV	22.5	90.7	38.5	103.2	39.5	103.2	94.8	91.9

EPNL = 94.3

TSC BELL 212 #32: FLYOVER, 96 KT., 500 FT.

T	PNL	P.T.	PNLT	DA	A-LEV	D-LEV	N-LEV	BAND #
0.0	88.5	1.0	89.5	90.4	73.5	83.2	90.2	1.2
0.5	88.4	0.0	88.4	90.4	73.3	83.1	90.1	0.1
1.0	88.7	0.0	88.7	90.6	73.5	83.3	90.3	0.1
1.5	89.0	0.0	89.0	91.0	73.8	83.6	90.6	0.1
2.0	89.2	0.0	89.2	91.2	73.7	83.7	90.7	0.1
2.5	89.1	0.0	89.1	91.3	73.4	83.5	90.5	0.1
3.0	88.9	0.0	88.9	91.3	73.1	83.3	90.3	0.1
3.5	88.9	0.0	88.9	91.1	73.3	83.1	90.1	0.1
4.0	89.5	0.0	89.5	91.0	74.4	83.2	90.2	0.1
4.5	90.5	0.0	90.5	91.2	76.5	84.1	91.1	0.1
5.0	91.5	0.0	91.5	91.1	77.8	84.7	91.7	0.1
5.5	91.7	0.0	91.7	91.0	78.2	84.8	91.8	0.1
6.0	92.6	0.0	92.6	91.0	79.3	85.4	92.4	0.1
6.5	93.0	0.0	93.0	90.6	79.7	85.6	92.6	0.1
7.0	92.6	0.7	93.3	90.1	79.6	85.3	92.3	0.8
7.5	93.6	0.9	94.5	89.8	80.3	85.8	92.8	0.8
8.0	95.0	1.1	96.1	90.0	81.8	87.3	94.3	0.8
8.5	94.9	1.2	96.1	89.6	82.0	87.4	94.4	0.7
9.0	94.4	0.7	95.1	89.0	81.7	87.1	94.1	0.7
9.5	94.4	0.9	95.3	88.7	81.6	87.0	94.0	0.2
10.0	93.7	0.9	94.6	88.1	80.6	86.2	93.2	0.2
10.5	92.8	0.8	93.6	87.5	79.6	85.5	92.5	0.2
11.0	92.1	0.5	92.6	86.8	78.6	84.6	91.6	0.2
11.5	91.2	0.7	91.9	85.7	77.5	83.6	90.6	0.4
12.0	90.3	1.0	91.3	84.6	76.5	82.6	89.6	0.4
12.5	89.2	1.1	90.3	83.6	75.5	81.6	88.6	0.4
13.0	88.2	1.1	89.3	82.4	74.8	80.8	87.8	0.4
13.5	87.8	1.0	88.8	81.9	74.7	80.4	87.4	0.4
14.0	87.7	0.9	88.6	81.5	74.9	80.5	87.5	0.4
14.5	87.7	1.2	88.9	80.9	74.7	80.2	87.2	1.6
15.0	87.7	1.8	89.5	80.2	74.4	79.9	86.9	1.6
15.5	87.0	1.9	88.9	79.5	73.7	79.2	86.2	1.6
16.0	86.4	2.2	88.6	78.9	73.2	78.6	85.6	1.6
16.5	86.0	2.1	88.1	78.4	72.7	78.3	85.3	1.6
17.0	85.0	2.3	87.3	77.6	71.7	77.3	84.3	1.6
17.5	83.7	2.2	85.9	77.5	70.2	76.0	83.0	1.6
18.0	82.3	2.1	84.4	76.8	68.9	74.8	81.8	1.6
18.5	82.3	2.2	84.5	76.1	69.1	74.8	81.8	1.6
19.0	83.0	2.3	85.3	76.1	69.7	75.7	82.7	1.6
19.5	82.2	2.0	84.2	75.5	69.0	75.0	82.0	1.6
20.0	80.6	2.0	82.6	74.3	67.3	73.3	80.3	1.6
20.5	79.7	2.0	81.7	73.8	66.4	72.3	79.3	1.6
21.0	79.8	2.2	82.0	73.7	66.5	72.2	79.2	1.6

MAXIMUM VALUES IN BANDS, PNLC = 97.1

50	63	80	100	125	160	200	250	315	400
85.3	84.0	85.2	83.6	83.1	80.4	82.5	83.2	80.9	79.4
77.0	73.3	71.8	68.8	68.0	67.3	65.4	65.3	62.9	59.8
56.7	55.2	58.0	59.2						

SPECTRUM FOR MAX PNLT

82.2	81.1	78.5	73.7	71.7	73.1	81.0	83.2	78.7	76.8
77.0	73.2	71.4	68.2	66.9	65.4	64.4	65.0	62.3	58.2
53.8	51.2	49.0	47.9						

TIME MAX D10 I-10 D20 I-20 D/15+M D/30+M B-128

P. T.	17.0	2.3						
PNL	8.0	95.0	17.0	103.4	21.0	103.6	95.5	93.5
PNLT	8.0	96.1	17.5	104.2	21.0	104.3	96.8	94.6
A-LEV	8.5	82.0	17.0	90.0	21.0	90.1	82.5	80.5
N-LEV	8.5	94.4	17.0	103.4	21.0	103.5	94.9	92.9

EPNL = 94.2



## TSC BELL 212 #36: FLYOVER, 105 KT., 450 FT.

T	PNL	P.T.	PNLT	OA	A-LEV	D-LEV	N-LEV	BAND #
0.0	86.9	0.0	86.9	88.7	71.5	81.3	88.3	0.1
0.5	88.5	0.0	88.5	90.0	73.4	83.1	90.1	0.1
1.0	90.0	0.0	90.0	91.2	75.1	84.5	91.5	0.1
1.5	91.2	0.0	91.2	92.0	76.6	85.6	92.6	0.1
2.0	91.7	0.0	91.7	92.3	77.3	86.0	93.0	0.1
2.5	91.2	0.0	91.2	91.8	77.1	85.6	92.6	0.1
3.0	90.5	0.0	90.5	91.3	76.1	84.9	91.9	0.1
3.5	90.1	0.0	90.1	91.1	75.6	84.5	91.5	0.1
4.0	90.0	0.0	90.0	91.0	75.4	84.3	91.3	0.1
4.5	89.9	0.0	89.9	91.1	75.5	84.5	91.5	0.1
5.0	89.9	0.0	89.9	91.2	75.5	84.6	91.6	0.1
5.5	89.6	0.0	89.6	91.2	75.0	84.4	91.4	0.1
6.0	89.8	0.0	89.8	91.5	75.2	84.6	91.6	0.1
6.5	90.5	0.0	90.5	92.1	75.8	85.3	92.3	0.1
7.0	90.7	0.0	90.9	92.5	76.3	85.7	92.7	0.1
7.5	91.2	0.0	91.2	92.8	76.6	86.0	93.0	0.1
8.0	91.3	0.0	91.3	92.9	76.6	86.0	93.0	0.1
8.5	91.3	0.0	91.3	92.8	76.4	85.9	92.9	0.1
9.0	91.6	0.0	91.6	92.8	76.4	85.8	92.8	0.1
9.5	91.7	0.0	91.7	93.0	76.4	85.9	92.9	0.1
10.0	91.8	1.1	92.9	93.1	76.5	86.0	93.0	1.5
10.5	92.1	1.4	93.5	93.3	76.8	86.1	93.1	1.5
11.0	92.2	1.0	93.2	93.4	76.9	86.1	93.1	1.5
11.5	92.2	0.0	92.2	93.4	76.9	85.9	92.9	0.1
12.0	92.4	0.0	92.4	93.5	77.5	86.0	93.0	0.1
12.5	92.5	0.0	92.5	93.4	77.9	86.1	93.1	0.1
13.0	92.6	0.0	92.6	93.2	78.0	86.0	93.0	0.1
13.5	92.4	0.0	92.4	92.8	78.2	85.8	92.8	0.1
14.0	93.4	0.0	93.4	92.7	79.7	86.4	93.4	0.1
14.5	94.1	0.0	94.1	92.6	80.5	86.8	93.8	0.1
15.0	96.1	0.0	96.1	92.9	82.5	88.3	95.3	0.1
15.5	97.1	0.0	97.1	92.9	83.4	89.2	96.2	0.1
16.0	96.9	0.6	97.5	92.2	83.5	89.2	96.2	0.7
16.5	96.6	0.7	97.3	91.1	82.9	88.6	95.6	0.7
17.0	96.1	0.6	96.7	90.3	82.5	88.3	95.3	0.5
17.5	95.2	0.6	95.8	89.5	81.6	87.6	94.6	0.2
18.0	94.1	0.5	94.6	88.5	80.5	86.6	93.6	0.2
18.5	93.2	0.6	93.8	87.3	79.5	85.6	92.6	0.4
19.0	92.0	0.7	92.7	85.7	78.5	84.5	91.5	0.4
19.5	90.8	0.6	91.4	84.4	77.7	83.5	90.5	0.4
20.0	90.4	1.0	91.4	83.2	77.4	83.0	90.0	1.6
20.5	90.0	1.3	91.3	82.3	76.9	82.3	89.3	1.6
21.0	89.0	1.5	90.5	81.4	75.9	81.3	88.3	1.6
21.5	88.5	1.5	90.0	81.1	75.4	80.9	87.9	1.6
22.0	88.1	1.3	89.4	80.7	75.3	80.6	87.6	1.6
22.5	87.1	1.5	88.6	80.0	74.2	79.5	86.5	1.6
23.0	86.1	1.2	87.3	79.3	73.3	78.8	85.8	1.6
23.5	84.5	1.6	86.1	77.7	71.7	77.2	84.2	1.6
24.0	84.7	2.3	87.0	77.1	71.8	77.1	84.1	1.6
24.5	85.1	1.6	86.7	77.2	72.7	77.8	84.8	1.6
25.0	84.7	1.6	86.3	76.9	72.3	77.4	84.4	1.6
25.5	83.3	1.7	85.0	76.2	70.8	75.8	82.8	1.6
26.0	81.7	1.7	83.4	75.2	69.2	74.2	81.2	1.6
26.5	80.6	1.6	82.2	74.4	68.3	73.1	80.1	1.6

MAXIMUM VALUES IN BANDS, PNLC = 99.0

B-130

50	63	80	100	125	160	200	250	315	400
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86.8	86.1	87.5	86.4	85.7	83.0	85.1	84.8	82.3	79.3
77.5	74.9	73.7	71.1	69.9	68.7	67.5	67.7	64.8	62.1
59.9	58.5	60.4	62.0						

SPECTRUM FOR MAX PNLT

83.5	84.3	81.0	75.8	76.3	78.5	85.1	84.0	79.3	79.3
76.7	74.9	73.7	71.1	69.3	67.3	66.4	66.3	63.5	61.2
58.5	56.5	54.1	51.6						

	TIME	MAX.	D10	I-10	D20	I-20	D/15+M	D/30+M
P. T.	24.0	2.3						
PNL	15.5	97.1	22.5	105.9	26.5	106.1	98.9	96.6
PNLT	16.0	97.5	23.0	106.3	26.5	106.5	99.4	97.0
A-LEV	16.0	83.5	22.5	91.9	26.5	92.1	85.3	83.0
N-LEV	15.5	96.2	23.0	106.3	26.5	106.4	98.1	95.7

EPNL = 96.3

TSC BELL 212 #43: 9 DEG. APRCH., 60 KT., 410 FT.

T	PNL	P.T.	PNLT	OA	A-LEV	D-LEV	N-LEV	BAND #
0.0	83.8	0.0	83.8	85.9	68.6	78.3	85.3	0.1
0.5	84.2	0.0	84.2	86.2	68.9	78.5	85.5	0.1
1.0	84.3	0.0	84.3	86.1	69.3	78.5	85.5	0.1
1.5	84.0	0.0	84.0	85.9	69.2	78.3	85.3	0.1
2.0	83.9	0.0	83.9	85.9	69.3	78.2	85.2	0.1
2.5	84.3	1.2	85.5	86.2	70.0	78.6	85.6	1.5
3.0	85.0	1.4	86.4	86.2	71.0	78.9	85.9	1.5
3.5	85.7	0.6	86.3	86.5	72.4	79.6	86.6	1.0
4.0	86.2	0.7	86.9	86.8	73.2	80.1	87.1	1.0
4.5	86.7	0.8	87.5	86.9	73.6	80.4	87.4	1.0
5.0	87.0	0.0	87.0	87.1	74.1	80.6	87.6	0.1
5.5	86.9	2.1	89.0	87.1	74.0	80.5	87.5	1.1
6.0	86.7	1.4	88.1	87.3	73.6	80.4	87.4	1.4
6.5	86.6	1.4	88.0	87.2	73.4	80.2	87.2	1.4
7.0	86.9	1.4	88.3	87.1	73.4	80.2	87.2	1.4
7.5	88.3	1.1	89.4	87.7	74.8	81.2	88.2	1.1
8.0	89.1	0.0	89.1	88.3	75.7	82.0	89.0	0.1
8.5	89.2	0.0	89.2	88.4	75.8	82.0	89.0	0.1
9.0	88.8	0.0	88.8	88.3	75.4	81.8	88.8	0.1
9.5	88.7	0.0	88.7	88.3	75.1	81.6	88.6	0.1
10.0	88.9	0.0	88.9	88.0	75.4	81.7	88.7	0.1
10.5	88.8	1.1	89.9	88.1	75.5	81.8	88.8	1.3
11.0	89.3	0.0	89.3	88.4	76.1	82.3	89.3	0.1
11.5	90.3	0.6	90.9	88.7	77.0	83.2	90.2	0.8
12.0	90.8	0.6	91.4	88.9	77.6	83.7	90.7	0.8
12.5	90.7	0.7	91.4	88.9	77.4	83.5	90.5	0.8
13.0	91.7	0.8	92.5	89.0	78.5	84.3	91.3	0.8
13.5	92.1	0.7	92.8	89.1	78.9	84.6	91.6	0.8
14.0	92.7	0.8	93.5	89.3	79.2	85.0	92.0	0.8
14.5	92.9	0.6	93.5	89.2	79.3	85.0	92.0	0.2
15.0	93.4	1.0	94.4	89.3	79.7	85.4	92.4	1.1
15.5	93.1	1.1	94.2	88.9	79.3	85.2	92.2	1.1
16.0	93.1	0.8	93.9	88.9	79.4	85.3	92.3	0.2
16.5	93.7	0.8	94.5	89.4	79.9	86.0	93.0	0.2
17.0	94.2	0.9	95.1	89.8	80.6	86.6	93.6	0.2
17.5	93.8	0.5	94.3	89.5	80.1	86.1	93.1	0.2
18.0	93.8	0.9	94.7	89.1	80.0	86.0	93.0	0.2
18.5	94.7	1.1	95.8	89.7	80.9	86.8	93.8	0.2
19.0	94.8	1.2	96.0	89.9	81.0	87.0	94.0	0.2
19.5	94.0	1.2	95.2	88.8	80.4	86.2	93.2	0.2
20.0	93.1	1.2	94.3	87.8	79.8	85.7	92.7	0.2
20.5	92.5	1.2	93.7	87.3	79.3	85.3	92.3	0.2
21.0	92.1	1.1	93.2	86.9	78.8	84.7	91.7	0.2
21.5	91.8	0.7	92.5	86.4	78.4	84.3	91.3	0.2
22.0	92.0	0.7	92.7	86.8	78.6	84.5	91.5	0.4
22.5	92.1	0.9	93.0	87.0	78.3	84.4	91.4	0.4
23.0	91.8	0.9	92.7	86.6	77.9	84.1	91.1	0.4
23.5	91.5	1.1	92.6	86.4	77.6	83.8	90.8	0.4
24.0	91.2	1.0	92.2	86.0	77.1	83.4	90.4	0.4
24.5	90.7	1.0	91.7	85.7	76.7	82.9	89.9	0.4
25.0	90.3	0.8	91.1	85.4	76.2	82.4	89.4	0.4
25.5	89.7	0.7	90.4	85.0	75.7	81.9	88.9	0.6
26.0	90.2	0.5	90.7	85.6	76.3	82.4	89.4	0.6
26.5	90.6	0.5	91.1	85.9	76.3	82.5	89.5	0.6
27.0	90.3	0.6	90.9	85.5	76.1	82.4	89.4	0.6
27.5	90.3	0.0	90.3	85.4	76.4	82.6	89.6	0.1
28.0	89.3	0.0	89.3	84.6	75.5	81.7	88.7	0.1
28.5	88.2	0.0	88.2	83.6	74.6	80.9	87.9	0.1
29.0	87.9	1.1	89.0	83.4	74.0	80.3	87.3	1.1

B-132

29.5	87.6	1.0	88.6	83.2	73.7	80.0	87.0	1.1
30.0	87.4	0.0	87.4	82.8	73.4	79.7	86.7	0.1
30.5	86.5	0.0	86.5	82.1	72.5	78.9	85.9	0.1
31.0	86.4	1.1	87.5	81.7	72.7	78.9	85.9	1.2
31.5	86.1	1.2	87.3	81.1	72.6	78.7	85.7	1.2
32.0	85.0	1.0	86.0	80.8	71.5	77.6	84.6	1.2
32.5	83.8	0.0	83.8	79.9	70.2	76.4	83.4	0.1
33.0	83.1	0.0	83.1	79.0	69.3	75.6	82.6	0.1
33.5	82.4	0.5	82.9	78.8	68.8	75.2	82.2	0.4

MAXIMUM VALUES IN BANDS, PNLC = 96.1

50	63	80	100	125	160	200	250	315	400
83.2	83.9	79.9	78.5	79.0	81.2	83.1	82.1	78.9	75.9
73.7	72.8	70.2	69.1	70.0	68.7	67.9	65.3	62.5	60.9
58.4	56.6	59.9	62.6						

SPECTRUM FOR MAX PNLT

82.0	83.0	69.4	68.8	76.7	81.2	83.0	77.8	76.1	75.1
72.4	71.8	69.9	69.0	70.0	68.7	67.9	65.3	62.2	60.2
57.3	55.5	55.1	54.0						

	TIME	MAX.	D10	I-10	DEC	I-20	D/15+M	D/30+M
P.T.	5.5	2.1						
PNL	19.0	94.8	30.0	105.6	33.5	105.7	97.8	95.3
PNLT	19.0	96.0	29.5	106.4	33.5	106.5	98.9	96.5
A-LEV	19.0	81.0	29.5	91.9	33.5	92.0	83.9	81.5
N-LEV	19.0	94.0	32.5	105.2	33.5	105.2	97.4	94.5

EPNL = 96.4

TSC 300C #34: FLYOVER, 75 MPH, 500 FT.

T	PNL	P.T.	PNLT	QA	A-LEV	D-LEV	N-LEV	BAND #
0.0	65.6	0.0	65.6	60.1	51.7	59.1	66.1	0.1
0.5	78.3	0.8	79.1	76.7	64.8	71.0	78.0	0.7
1.0	76.6	0.9	77.5	74.8	63.1	69.4	76.4	0.7
1.5	74.7	0.8	75.3	72.7	61.2	67.7	74.7	0.7
2.0	73.1	0.9	74.0	71.7	59.4	66.3	73.3	0.7
2.5	72.3	0.8	73.1	71.2	59.0	65.8	72.8	0.4
3.0	71.8	0.9	72.7	71.0	58.0	65.3	72.3	0.4
3.5	71.4	1.0	72.4	69.9	57.7	64.7	71.7	0.4
4.0	71.4	0.7	72.1	70.4	57.6	64.8	71.8	0.4
4.5	72.0	0.8	72.8	70.2	58.3	65.0	72.0	0.4
5.0	72.1	0.8	72.9	69.9	58.5	65.0	72.0	0.9
5.5	71.3	0.9	72.2	69.0	57.7	64.3	71.3	0.9
6.0	70.9	0.9	71.8	68.2	57.4	63.9	70.9	0.4
6.5	69.8	1.1	70.9	67.3	56.3	63.1	70.1	0.4
7.0	69.1	1.2	70.3	66.5	55.5	62.6	69.6	0.4
7.5	68.5	1.3	69.8	65.7	55.0	62.1	69.1	0.4
8.0	68.7	1.2	69.9	65.7	55.0	62.2	69.2	0.4
8.5	69.6	1.2	70.8	65.9	56.0	62.7	69.7	0.4
9.0	70.5	1.2	71.7	66.4	56.9	63.3	70.3	0.4
9.5	71.8	1.0	72.8	68.1	58.3	64.4	71.4	0.4
10.0	72.0	1.1	73.1	68.4	58.5	64.7	71.7	0.4
10.5	71.9	1.2	73.1	68.0	58.4	64.5	71.5	0.4
11.0	71.9	1.2	73.1	68.4	58.5	64.6	71.6	0.4
11.5	71.6	1.6	73.2	67.6	58.4	64.5	71.5	0.7
12.0	71.0	1.7	72.7	66.6	57.7	63.9	70.9	0.7
12.5	71.4	1.6	73.0	66.4	58.5	64.3	71.3	0.7
13.0	72.9	1.7	74.6	67.2	60.1	65.6	72.6	0.7
13.5	73.5	1.8	75.3	67.5	60.6	66.1	73.1	0.7
14.0	73.8	1.9	75.7	67.8	60.9	66.4	73.4	0.7
14.5	74.7	1.9	76.6	68.4	61.9	67.4	74.4	0.7
15.0	74.7	1.9	76.6	68.4	62.0	67.4	74.4	0.7
15.5	75.3	2.0	77.3	68.8	62.8	68.3	75.3	0.7
16.0	77.3	2.0	79.3	70.5	64.7	70.2	77.2	0.7
16.5	77.7	2.1	79.8	71.0	65.3	70.7	77.7	0.7
17.0	77.4	1.9	79.3	70.8	65.1	70.6	77.6	0.7
17.5	77.6	1.6	79.2	70.9	65.3	70.8	77.8	0.7
18.0	79.0	1.6	80.6	72.0	66.7	72.2	79.2	0.4
18.5	79.9	1.6	81.5	73.2	67.5	73.0	80.0	0.4
19.0	79.7	1.7	81.4	73.2	67.4	73.0	80.0	0.4
19.5	80.0	1.6	81.6	73.2	67.4	73.1	80.1	0.4
20.0	81.1	1.8	82.9	73.9	68.5	74.1	81.1	0.4
20.5	80.9	1.8	82.7	73.9	68.2	73.8	80.8	0.4
21.0	80.6	1.8	82.4	73.5	68.0	73.6	80.6	0.4
21.5	80.7	1.8	82.5	73.5	68.0	73.7	80.7	0.4
22.0	80.3	1.7	82.0	73.5	67.7	73.4	80.4	0.4
22.5	79.5	1.6	81.1	73.1	67.0	72.7	79.7	0.4
23.0	78.9	1.4	80.3	72.2	66.5	72.1	79.1	0.4
23.5	78.1	1.5	79.6	71.4	65.7	71.4	78.4	0.4
24.0	78.7	1.0	79.7	71.4	66.6	72.0	79.0	0.7
24.5	79.2	1.3	80.5	71.4	67.0	72.5	79.5	0.7
25.0	78.4	1.5	79.9	70.9	66.2	71.6	78.6	0.7
25.5	77.8	1.7	79.5	70.9	65.8	71.1	78.1	0.7
26.0	78.3	1.7	80.0	70.9	66.2	71.5	78.5	0.7
26.5	77.7	1.6	79.3	70.1	65.6	70.9	77.9	0.4
27.0	77.2	2.0	79.2	70.1	65.1	70.4	77.4	0.4
27.5	76.5	2.0	78.5	69.9	64.2	69.8	76.8	0.4
28.0	75.5	2.0	77.5	69.2	63.2	68.6	75.6	0.4
28.5	75.3	2.1	77.4	69.1	63.0	68.5	75.5	0.4
29.0	76.6	2.1	78.7	69.1	64.7	69.9	76.9	0.4

B-134

29.5	75.4	2.0	77.4	68.3	63.5	68.6	75.6	0.4
30.0	74.8	2.1	76.9	68.2	63.2	68.0	75.0	0.4
30.5	73.8	2.2	76.0	67.8	62.1	67.0	74.0	0.4
31.0	73.0	2.0	75.0	67.6	61.1	66.2	73.2	0.4
31.5	72.0	1.7	73.7	66.8	60.0	65.2	72.2	1.1
32.0	71.4	1.5	72.9	67.1	59.4	64.9	71.9	1.1

MAXIMUM VALUES IN BANDS, PNLC = 82.3

50	63	80	100	125	160	200	250	315	400
72.0	68.7	65.6	68.4	64.3	62.1	66.9	65.3	65.6	61.2
59.7	58.9	57.6	59.6	58.9	57.1	57.6	56.7	50.8	47.9
44.8	44.9	45.9	47.0						

SPECTRUM FOR MAX PNLT

61.1	58.0	60.3	68.1	57.4	56.8	62.1	64.0	64.8	61.2
58.3	58.7	57.2	59.5	58.9	57.0	57.6	56.7	50.3	47.5
44.5	43.4	44.0	45.1						

	TIME	MAX.	D10	I-10	D20	I-20	D/15+M	D/30+M
P. T.	30.5	2.2						
PNL	20.0	81.1	20.0	90.7	32.0	91.4	82.3	81.4
PNLT	20.0	82.9	20.0	92.4	32.0	93.0	84.1	83.2
A-LEV	20.0	68.5	19.5	78.3	32.0	78.9	69.6	68.8
N-LEV	20.0	81.1	20.0	90.8	32.0	91.5	82.3	81.4

EPNL = 82.4



TSC 300 C #44: 6 DEG. APRCH., 60 MPH, 400 FT.

T	PNL	P.T.	PNLT	DA	A-LEV	D-LEV	N-LEV	BAND #
0.0	69.7	1.2	71.1	66.7	57.4	63.2	70.2	1.3
0.5	71.2	1.0	72.2	67.2	58.8	64.1	71.1	0.4
1.0	71.8	0.9	72.7	67.7	59.1	64.5	71.5	0.4
1.5	71.9	0.8	72.7	67.7	59.4	64.7	71.7	0.4
2.0	71.5	0.8	72.3	67.7	58.7	64.3	71.3	0.4
2.5	70.6	0.9	71.5	67.1	57.8	63.7	70.7	0.4
3.0	70.8	0.8	71.6	67.3	57.4	63.7	70.7	0.4
3.5	72.0	1.3	73.3	67.6	58.1	64.3	71.3	0.9
4.0	71.8	1.4	73.2	67.3	57.9	64.2	71.2	0.9
4.5	71.3	1.3	72.6	66.5	57.7	63.8	70.8	0.9
5.0	71.6	1.2	72.8	66.8	58.2	64.2	71.2	0.4
5.5	73.7	1.5	75.2	68.4	60.5	65.9	72.9	0.9
6.0	74.4	1.6	76.0	69.8	61.4	66.8	73.8	0.7
6.5	74.3	1.7	76.0	69.9	61.3	66.9	73.9	0.7
7.0	74.0	1.8	75.8	70.1	60.7	66.7	73.7	0.7
7.5	74.8	1.7	76.5	70.9	61.1	67.2	74.2	0.7
8.0	75.7	1.7	77.4	70.7	62.3	68.0	75.0	0.7
8.5	77.6	1.3	78.9	71.9	65.1	70.1	77.1	0.7
9.0	78.8	1.3	80.1	72.9	66.6	71.4	78.4	0.7
9.5	78.7	1.5	80.2	72.4	66.4	71.3	78.3	0.7
10.0	79.0	1.8	80.8	72.5	66.6	71.6	78.6	0.7
10.5	78.4	1.8	80.2	71.9	65.7	71.0	78.0	0.7
11.0	78.1	1.6	79.7	71.7	65.5	71.1	78.1	0.7
11.5	78.0	1.3	79.3	71.5	65.6	71.1	78.1	0.7
12.0	77.9	1.5	79.4	71.5	65.5	71.0	78.0	0.4
12.5	78.8	1.6	80.4	72.4	66.3	71.9	78.9	0.4
13.0	79.9	1.4	81.3	73.5	67.7	73.1	80.1	0.4
13.5	81.0	1.0	82.0	75.3	69.2	74.4	81.4	0.4
14.0	80.9	0.9	81.8	75.5	69.4	74.5	81.5	0.4
14.5	80.7	0.7	81.4	74.9	69.1	74.0	81.0	0.4
15.0	79.8	0.7	80.5	73.8	68.3	73.2	80.2	0.4
15.5	79.0	1.0	80.0	72.9	67.3	72.4	79.4	0.6
16.0	78.7	1.3	80.0	72.7	67.0	72.0	79.0	0.6
16.5	77.9	1.4	79.3	72.2	66.1	71.1	78.1	0.6
17.0	78.1	0.8	78.9	72.3	66.8	71.5	78.5	0.6
17.5	77.2	0.8	78.0	71.6	65.7	70.6	77.6	0.6
18.0	75.8	0.7	76.5	70.1	64.1	69.1	76.1	0.6
18.5	75.0	0.7	75.7	69.1	63.2	68.2	75.2	0.6
19.0	74.4	0.0	74.4	68.5	62.3	67.6	74.6	0.1
19.5	74.8	0.0	74.8	68.7	62.3	67.7	74.7	0.1
20.0	74.2	0.0	74.2	68.5	61.8	67.3	74.3	0.1
20.5	73.5	0.0	73.5	68.5	60.7	66.5	73.5	0.1
21.0	72.5	0.0	72.5	68.1	59.9	65.6	72.6	0.1
21.5	71.1	0.0	71.1	67.3	58.3	64.4	71.4	0.1
22.0	70.7	0.0	70.7	67.8	57.7	64.1	71.1	0.1
22.5	70.5	0.5	71.0	67.7	57.8	64.0	71.0	0.4
23.0	69.8	0.6	70.4	67.7	56.7	63.5	70.5	0.4
23.5	69.8	0.5	70.3	67.3	56.7	63.3	70.3	0.4
24.0	69.7	0.5	70.2	67.0	56.9	63.2	70.2	0.3
24.5	69.4	0.5	69.9	66.5	56.5	62.8	69.8	0.3
25.0	69.9	0.0	69.9	65.7	57.6	63.1	70.1	0.1
25.5	69.4	0.5	69.9	64.7	57.3	62.8	69.8	0.3
26.0	69.0	0.5	69.5	64.6	56.2	62.3	69.3	0.8
26.5	68.8	0.5	69.3	64.3	55.7	62.1	69.1	0.3
27.0	69.5	0.6	70.1	65.2	56.6	62.9	69.9	0.3
27.5	69.4	0.5	69.9	65.5	56.3	62.8	69.8	0.3
28.0	68.9	0.5	69.4	65.0	55.4	62.3	69.3	0.3
28.5	68.5	0.6	69.1	64.5	55.0	61.9	68.9	0.3
29.0	68.7	0.6	69.3	64.0	55.5	62.0	69.0	0.3

B-136



MAXIMUM VALUES IN BANDS, PNLC = 81.9

50	63	80	100	125	160	200	250	315	400
66.1	59.5	61.9	67.5	65.1	66.7	68.7	66.7	65.5	63.4
63.0	61.8	60.3	59.4	58.6	56.6	55.8	53.9	50.1	46.7
44.3	43.6	44.7	45.7						

SPECTRUM FOR MAX PNLT

59.7	54.1	59.7	67.5	64.8	65.5	64.2	66.7	65.4	63.4
61.7	61.4	59.7	59.4	58.6	56.4	55.6	53.9	49.5	46.4
44.1	43.5	44.1	45.2						

	TIME	MAX.	D10	I-10	D20	I-20	D/15+M	D/30+M
P. T.	7.0	1.8						
PNL	13.5	81.0	19.0	89.9	29.0	90.3	82.0	80.9
PNLT	13.5	82.0	18.5	91.1	29.0	91.5	82.9	81.9
A-LEV	14.0	69.4	16.5	77.7	29.0	78.1	69.8	69.3
N-LEV	14.0	81.5	16.5	89.8	29.0	90.4	81.9	81.4

EPNL = 81.1

TSC 206L #46: 6 DEG. APRCH., 70 MPH, 400 FT.

T	PNL	P.T	PNLT	OA	A-LEV	D-LEV	N-LEV	BAND #
0.0	72.1	0.0	72.1	67.9	59.7	64.7	71.7	0.1
0.5	71.4	0.0	71.4	68.0	58.6	64.1	71.1	0.1
1.0	71.3	0.6	71.9	68.0	58.6	64.1	71.1	0.4
1.5	70.8	0.6	71.4	68.0	57.8	63.7	70.7	0.4
2.0	70.4	0.0	70.4	67.9	57.4	63.5	70.5	0.1
2.5	69.7	0.6	70.3	67.9	56.5	63.1	70.1	0.7
3.0	69.4	0.0	69.4	68.4	56.1	63.1	70.1	0.1
3.5	69.4	0.0	69.4	68.9	55.9	63.3	70.3	0.1
4.0	72.7	0.8	73.5	69.7	59.0	65.2	72.2	1.0
4.5	73.0	0.8	73.8	70.0	59.4	65.5	72.5	1.0
5.0	71.8	0.7	72.5	69.5	58.1	64.6	71.6	1.0
5.5	71.3	0.8	72.1	69.6	57.6	64.3	71.3	0.8
6.0	72.7	1.4	74.1	70.2	59.0	65.3	72.3	1.3
6.5	72.6	1.2	73.8	70.4	58.8	65.4	72.4	1.3
7.0	71.9	1.1	73.0	70.7	57.8	64.9	71.9	1.3
7.5	72.0	1.0	73.0	71.3	57.6	65.1	72.1	1.0
8.0	72.2	1.0	73.2	71.3	57.8	65.2	72.2	1.0
8.5	73.1	0.8	73.9	72.1	58.9	66.1	73.1	1.0
9.0	75.0	0.7	75.7	73.0	61.3	67.7	74.7	1.0
9.5	75.3	0.6	75.9	73.1	61.8	67.9	74.9	1.0
10.0	75.6	0.6	76.2	73.6	62.1	68.2	75.2	1.0
10.5	75.8	0.5	76.3	73.8	62.4	68.5	75.5	1.0
11.0	75.7	0.6	76.3	74.3	62.2	68.5	75.5	1.0
11.5	75.6	0.6	76.2	74.0	62.0	68.3	75.3	1.0
12.0	75.9	0.6	76.5	74.0	62.6	68.6	75.6	1.0
12.5	77.3	0.8	78.1	74.3	64.3	69.8	76.8	1.0
13.0	79.0	0.7	79.7	76.0	66.5	71.7	78.7	1.0
13.5	80.5	1.2	81.7	77.3	69.2	73.8	80.8	1.2
14.0	81.2	1.3	82.5	77.6	70.0	74.6	81.6	1.2
14.5	82.7	1.1	83.8	78.6	71.5	76.0	83.0	1.2
15.0	83.1	0.0	83.1	79.0	71.9	76.5	83.5	0.1
15.5	83.1	0.0	83.1	79.2	72.5	76.6	83.6	0.1
16.0	83.5	1.2	84.7	79.2	72.4	76.5	83.5	1.1
16.5	84.5	1.6	86.1	79.9	73.3	77.4	84.4	1.1
17.0	83.9	1.6	85.5	79.3	72.3	76.6	83.6	1.1
17.5	83.0	1.5	84.5	78.5	71.2	75.5	82.5	1.1
18.0	82.1	1.8	83.9	78.1	70.0	74.7	81.7	1.1
18.5	81.2	1.6	82.8	77.4	68.9	74.0	81.0	1.1
19.0	80.9	0.9	81.8	77.3	68.5	73.9	80.9	0.6
19.5	81.8	1.0	82.8	78.0	69.5	75.0	82.0	0.6
20.0	82.7	0.8	83.5	78.2	70.3	75.8	82.8	0.6
20.5	82.5	0.9	83.4	78.1	70.3	75.9	82.9	0.6
21.0	84.1	1.0	85.1	78.8	71.8	77.2	84.2	0.6
21.5	84.9	1.2	86.1	79.3	72.6	78.0	85.0	0.6
22.0	84.8	1.1	85.9	79.3	72.6	78.0	85.0	0.6
22.5	85.8	1.1	86.9	80.3	73.9	79.1	86.1	0.6
23.0	86.6	1.1	87.7	80.9	74.4	79.7	86.7	0.6
23.5	86.2	1.1	87.3	80.5	73.9	79.3	86.3	0.6
24.0	85.8	1.2	87.0	80.2	73.6	79.0	86.0	0.6
24.5	85.4	1.1	86.5	79.7	73.4	78.6	85.6	0.6
25.0	85.1	1.1	86.2	79.0	73.1	78.0	85.0	0.6
25.5	84.6	1.1	85.7	78.5	72.9	77.6	84.6	0.6
26.0	83.5	1.1	84.6	77.4	72.3	76.8	83.8	0.6
26.5	82.7	1.0	83.7	76.8	71.9	76.0	83.0	0.6
27.0	82.3	0.8	83.1	76.9	71.4	75.6	82.6	0.6
27.5	82.5	0.7	83.2	77.1	71.0	75.5	82.5	0.6
28.0	82.4	0.9	83.3	76.8	70.7	75.2	82.2	0.9
28.5	82.0	1.0	83.0	76.5	70.4	75.0	82.0	0.6
29.0	81.4	1.2	82.6	75.9	69.9	74.5	81.5	0.6

B-138

29.5	80.7	1.1	81.8	75.6	69.1	73.8	80.8	0.6
30.0	81.0	1.0	82.0	75.9	69.1	73.9	80.9	0.6
30.5	81.8	1.1	82.9	77.0	69.8	74.8	81.8	0.6
31.0	81.5	0.8	82.3	76.6	69.6	74.5	81.5	0.6
31.5	81.3	0.9	82.2	76.2	69.2	74.1	81.1	0.6
32.0	80.8	1.0	81.8	75.7	68.9	73.7	80.7	1.1
32.5	80.6	0.7	81.3	75.4	68.5	73.4	80.4	0.8
33.0	80.3	0.8	81.1	75.3	68.1	73.1	80.1	0.8
33.5	80.8	0.6	81.4	75.9	68.5	73.6	80.6	0.8
34.0	80.0	0.6	80.6	75.1	67.9	72.8	79.8	0.8
34.5	79.3	0.5	79.8	74.3	67.3	72.0	79.0	0.3
35.0	78.6	1.1	79.7	73.7	66.7	71.3	78.3	0.8
35.5	78.4	0.5	78.9	73.5	66.7	71.3	78.3	0.3
36.0	79.0	1.3	80.3	73.9	67.1	71.7	78.7	1.3
36.5	78.0	1.3	79.3	73.1	66.0	70.6	77.6	1.3
37.0	77.8	1.3	79.1	73.0	65.9	70.5	77.5	1.3
37.5	78.4	1.1	79.5	73.2	66.6	71.1	78.1	1.3
38.0	77.9	0.5	78.4	72.4	66.0	70.4	77.4	0.6
38.5	77.8	1.0	78.8	72.3	65.9	70.4	77.4	0.9
39.0	77.9	0.8	78.7	72.2	66.4	70.6	77.6	1.0
39.5	77.7	0.0	77.7	72.1	66.3	70.4	77.4	0.1
40.0	76.4	0.0	76.4	71.3	64.8	69.1	76.1	0.1
40.5	75.2	0.0	75.2	70.5	63.2	67.8	74.8	0.1
41.0	74.4	0.0	74.4	69.8	62.6	67.2	74.2	0.1
41.5	74.0	0.5	74.5	69.0	62.5	66.7	73.7	0.8
42.0	72.9	0.5	73.4	68.4	61.0	65.6	72.6	0.8
42.5	71.6	0.6	72.2	67.9	59.4	64.6	71.6	0.8
43.0	71.2	0.7	71.9	67.2	58.4	64.1	71.1	0.8

MAXIMUM VALUES IN BANDS, PNLC = 87.6

50	63	80	100	125	160	200	250	315	400
72.6	71.8	68.1	65.8	67.3	76.0	71.9	71.9	72.2	69.6
71.8	67.7	65.3	64.0	62.6	62.1	61.1	58.5	55.6	51.6
47.1	44.0	44.2	45.2						

SPECTRUM FOR MAX PNLT

65.6	62.9	67.1	65.4	67.3	76.0	71.9	67.8	70.4	69.6
67.2	66.7	65.1	63.2	62.6	62.1	61.1	58.5	55.6	51.6
47.1	44.0	44.0	44.9						

	TIME	MAX.	D10	I-10	D20	I-20	D/15+M	D/30+M
P. T.	18.0	1.8						
PNL	23.0	86.6	28.0	96.8	43.0	97.1	89.3	88.2
PNLT	23.0	87.7	27.5	97.8	43.0	98.1	90.3	89.3
A-LEV	23.0	74.4	28.0	85.0	43.0	85.2	77.1	76.0
N-LEV	23.0	86.7	28.0	96.8	43.0	97.1	89.4	88.3

EPNL = 87.8

TSC 206L #71: FLYOVER, 130 MPH, 560 FT.

T	PNL	P.T.	PNLT	OA	A-LEV	D-LEV	N-LEV	BAND #
0.0	76.2	0.6	76.8	76.8	60.3	69.6	76.6	0.4
0.5	76.3	0.6	76.9	76.9	60.4	69.8	76.8	0.4
1.0	77.7	0.5	78.4	78.4	61.8	71.3	78.3	0.4
1.5	79.8	0.0	79.8	79.9	64.6	73.3	80.3	0.1
2.0	81.7	0.0	81.7	81.4	67.7	75.2	82.2	0.1
2.5	82.2	0.0	82.2	82.2	68.2	75.8	82.8	0.1
3.0	81.6	0.0	81.6	81.7	67.2	75.1	82.1	0.1
3.5	82.1	0.0	82.1	81.5	69.0	75.5	82.5	0.1
4.0	82.0	0.0	82.0	81.7	68.1	75.3	82.3	0.1
4.5	81.4	0.5	81.9	81.2	67.2	74.7	81.7	1.0
5.0	81.0	0.0	81.0	80.9	67.0	74.4	81.4	0.1
5.5	81.0	0.0	81.0	81.0	66.8	74.3	81.3	0.1
6.0	81.6	0.8	82.4	80.8	68.3	74.8	81.8	1.0
6.5	82.1	1.1	83.2	80.5	69.2	75.0	82.0	1.1
7.0	82.4	1.3	83.7	81.0	69.4	75.3	82.3	1.3
7.5	83.0	1.4	84.4	81.8	69.9	75.8	82.8	1.3
8.0	84.6	1.2	85.8	82.6	72.0	77.4	84.4	0.9
8.5	84.1	1.0	85.1	82.3	71.8	77.1	84.1	0.7
9.0	84.0	1.4	85.4	81.6	72.0	76.9	83.9	0.7
9.5	84.1	1.6	85.7	81.2	72.4	76.9	83.9	0.7
10.0	83.2	1.5	84.7	80.2	71.2	75.9	82.9	0.7
10.5	84.0	1.2	85.2	79.9	71.9	76.7	83.7	0.7
11.0	84.8	1.5	86.3	79.9	72.5	77.4	84.4	0.7
11.5	84.6	1.7	86.3	79.3	71.7	76.9	83.9	0.7
12.0	85.9	1.7	87.6	80.1	73.3	78.4	85.4	0.7
12.5	86.3	1.7	88.0	80.3	73.3	78.5	85.5	0.7
13.0	86.6	0.9	87.5	80.7	73.5	79.0	86.0	0.7
13.5	85.5	0.0	85.5	80.0	72.6	78.2	85.2	0.1
14.0	84.0	0.0	84.0	78.8	71.5	76.9	83.9	0.1
14.5	82.2	0.0	82.2	77.0	70.0	75.2	82.2	0.1
15.0	80.9	0.0	80.9	75.8	68.9	73.9	80.9	0.1
15.5	79.8	0.0	79.8	74.7	68.0	73.0	80.0	0.1
16.0	78.8	0.0	78.8	73.8	66.7	71.8	78.8	0.1
16.5	78.9	0.0	78.9	73.6	66.7	71.8	78.8	0.1
17.0	78.4	0.0	78.4	73.0	66.0	71.1	78.1	0.1
17.5	78.1	0.6	78.7	72.4	65.6	70.6	77.6	0.8
18.0	78.2	1.1	79.3	72.8	65.8	70.7	77.7	1.1
18.5	78.3	0.6	78.9	73.0	65.9	70.8	77.8	0.8
19.0	77.3	0.6	77.9	72.3	65.2	70.0	77.0	0.8
19.5	76.9	1.2	78.1	71.5	65.0	69.6	76.6	1.2
20.0	75.9	1.0	76.9	70.5	64.0	68.7	75.7	1.2
20.5	75.8	0.0	75.8	70.1	64.3	68.6	75.6	0.1

MAXIMUM VALUES IN BANDS, PNLC = 88.5

50	63	80	100	125	160	200	250	315	400
76.5	74.1	74.4	75.8	73.6	73.3	76.4	71.1	71.0	71.4
69.5	66.7	64.8	62.3	62.3	60.6	58.7	56.6	53.3	49.4
46.2	46.4	47.9	49.5						

SPECTRUM FOR MAX PNLT

68.3	62.7	63.6	65.8	63.6	70.0	76.4	67.6	67.6	69.7
68.3	64.7	63.1	61.5	60.2	59.0	57.1	54.5	50.8	47.1
45.6	46.3	47.7	49.3						

P.T. TIME MAX. D10 I-10 D20 I-20 D/15+M D/30+M B-140

PNL	13.0	86.6	19.5	95.4	20.5	95.5	87.7	84.9
PNLT	12.5	88.0	18.5	96.2	20.5	96.4	88.9	86.3
A-LEV	13.0	73.5	19.5	82.6	20.5	82.6	74.6	71.8
N-LEV	13.0	86.0	20.0	95.3	20.5	95.3	87.2	84.3

EPNL = 86.2



TSC 47G #19: 6 DEG APRCH., 60 MPH, 400 FT.

T	PNI	P.T.	PNLT	OA	A-LEV	D-LEV	N-LEV	BAND #
0.0	72.1	0.6	72.7	67.9	61.1	65.3	72.3	0.6
0.5	72.5	0.6	73.1	68.3	61.6	65.7	72.7	0.6
1.0	73.2	0.7	73.9	68.8	62.4	66.4	73.4	0.6
1.5	73.6	1.3	74.9	68.9	63.0	66.9	73.9	1.3
2.0	73.3	1.2	74.5	68.8	62.5	66.5	73.5	1.3
2.5	72.8	1.1	73.9	68.6	61.7	65.9	72.9	1.3
3.0	72.3	0.7	73.0	67.9	61.0	65.4	72.4	0.6
3.5	71.7	0.6	72.3	67.2	60.1	64.7	71.7	0.3
4.0	72.5	0.7	73.2	67.9	60.9	65.5	72.5	0.3
4.5	73.0	0.7	73.7	68.3	61.6	66.1	73.1	0.3
5.0	73.2	0.6	73.8	68.2	61.9	66.3	73.3	0.3
5.5	74.0	0.6	74.6	69.1	62.9	67.3	74.3	0.3
6.0	74.6	0.6	75.2	69.7	63.5	68.0	75.0	0.3
6.5	75.2	1.3	76.5	70.3	64.2	68.7	75.7	1.2
7.0	75.8	1.5	77.3	70.7	64.7	69.3	76.3	1.2
7.5	76.7	1.6	78.3	71.4	65.6	70.1	77.1	1.2
8.0	77.7	1.7	79.4	72.4	67.1	71.4	78.4	1.2
8.5	78.5	1.6	80.1	73.2	68.2	72.3	79.3	1.2
9.0	78.9	1.5	80.4	73.6	68.4	72.6	79.6	1.2
9.5	78.9	1.9	80.8	73.8	68.5	72.6	79.6	1.2
10.0	79.5	1.0	80.5	74.4	69.0	73.2	80.2	0.9
10.5	81.3	1.8	83.1	76.0	70.7	74.7	81.7	1.1
11.0	82.0	2.1	84.1	76.5	71.1	75.3	82.3	1.1
11.5	83.3	3.1	86.4	77.2	71.9	76.1	83.1	2.3
12.0	83.3	2.1	85.4	77.5	72.0	76.3	83.3	1.1
12.5	83.7	1.7	85.4	78.0	72.2	76.8	83.8	1.1
13.0	84.1	1.7	85.8	78.5	72.6	77.4	84.4	1.1
13.5	84.5	1.1	85.6	79.0	73.1	78.0	85.0	0.6
14.0	85.8	1.2	87.0	79.9	74.0	79.0	86.0	0.6
14.5	86.8	1.3	88.1	80.9	74.8	79.9	86.9	0.6
15.0	87.4	1.6	89.0	81.9	75.5	80.8	87.8	0.6
15.5	88.3	1.3	89.6	82.8	75.9	81.5	88.5	0.6
16.0	89.2	1.4	90.6	83.5	76.5	82.3	89.3	0.6
16.5	89.7	1.3	91.0	83.8	76.8	82.6	89.6	0.6
17.0	89.9	1.2	91.1	84.1	77.0	82.8	89.8	0.6
17.5	89.9	1.1	91.0	84.3	76.8	82.8	89.8	0.6
18.0	90.3	1.2	91.5	84.7	76.7	82.9	89.9	0.6
18.5	90.0	1.4	91.4	84.4	76.1	82.5	89.5	0.6
19.0	89.9	1.3	91.2	84.4	75.8	82.4	89.4	0.6
19.5	90.2	1.3	91.5	84.6	76.2	82.8	89.8	0.6
20.0	89.6	1.1	90.7	84.3	75.7	82.3	89.3	0.6
20.5	89.1	1.0	90.1	83.9	75.4	81.8	88.8	0.6
21.0	88.3	1.5	89.8	83.1	75.1	81.2	88.2	0.5
21.5	87.4	1.5	88.9	82.1	74.5	80.6	87.6	0.5
22.0	87.0	1.5	88.5	80.7	73.8	80.1	87.1	0.5
22.5	86.1	0.8	86.9	79.3	72.9	79.2	86.2	0.5
23.0	84.5	0.7	85.2	77.7	71.4	77.6	84.6	0.5
23.5	83.1	0.6	83.7	76.3	70.3	76.3	83.3	0.5
24.0	82.0	1.2	83.2	75.2	69.7	75.3	82.3	1.5
24.5	81.8	1.2	83.0	75.4	70.1	75.2	82.2	1.5
25.0	81.6	1.0	82.6	75.3	69.9	74.9	81.9	1.5
25.5	81.2	0.9	82.1	74.7	69.3	74.5	81.5	0.5
26.0	80.5	1.0	81.5	74.5	68.5	73.9	80.9	0.5
26.5	79.5	1.0	80.5	74.2	67.5	72.9	79.9	0.5
27.0	78.7	1.1	79.8	74.0	66.7	72.2	79.2	0.5
27.5	78.1	1.1	79.2	73.8	66.3	71.8	78.8	0.5
28.0	77.5	1.0	78.5	73.6	65.8	71.3	78.3	0.5
28.5	76.9	1.0	77.9	73.2	65.1	70.8	77.8	0.5
29.0	76.4	1.1	77.5	72.9	64.3	70.2	77.2	0.5

B-142



29.5	75.9	1.0	76.9	72.5	63.9	69.7	76.7	0.5
30.0	76.0	1.4	77.4	72.1	63.6	69.6	76.6	1.8
30.5	75.6	1.6	77.2	71.9	63.0	69.2	76.2	1.8
31.0	74.7	1.5	76.2	71.4	62.2	68.4	75.4	1.8

MAXIMUM VALUES IN BANDS, PNLC = 91.3

50	63	80	100	125	160	200	250	315	400
67.8	64.7	63.4	73.0	77.4	81.8	73.0	74.1	74.5	73.3
71.3	69.0	66.3	64.7	65.5	61.9	62.6	63.9	60.7	58.9
55.9	52.3	55.0	43.1						

SPECTRUM FOR MAX PNLT

63.1	59.4	63.2	73.0	76.6	81.0	70.8	73.8	72.1	72.1
69.4	68.1	65.8	64.7	64.6	61.2	61.3	62.6	59.9	58.2
55.3	52.0	48.2	42.6						

	TIME	MAX.	D10	I-10	D20	I-20	D/15+M	D/30+M
P. T.	11.5	3.1						
PNL	18.0	90.3	16.5	99.2	31.0	99.5	90.7	90.4
PNLT	18.0	91.5	16.0	100.5	31.0	100.8	91.8	91.6
A-LEV	17.0	77.0	19.5	86.5	31.0	86.7	78.1	77.1
N-LEV	18.0	89.9	17.0	99.1	31.0	99.4	90.4	90.0

EPNL = 90.5

TSC 47G #29: FLYOVER, 68 MPH, 500 FT.

T	PNL	P. T.	PNLT	DA	A-LEV	D-LEV	N-LEV	BAND #
0.0	73.9	1.3	75.2	70.0	61.4	66.9	73.9	0.3
0.5	74.6	1.2	75.8	70.4	62.3	67.8	74.8	0.3
1.0	75.2	1.2	76.4	70.8	63.3	68.7	75.7	0.3
1.5	75.9	1.2	77.1	71.1	63.9	69.3	76.3	0.3
2.0	76.1	1.2	77.3	71.0	64.1	69.5	76.5	0.3
2.5	77.8	1.2	79.0	71.0	65.0	71.0	78.0	0.3
3.0	78.8	1.1	79.9	71.6	65.7	71.9	78.9	0.3
3.5	80.0	1.3	81.3	72.7	66.6	73.1	80.1	0.6
4.0	80.4	1.3	81.7	73.7	67.0	73.5	80.5	0.6
4.5	81.3	1.6	82.9	74.8	68.0	74.5	81.5	0.6
5.0	82.2	1.9	84.1	75.9	69.2	75.6	82.6	0.6
5.5	83.0	2.2	85.2	76.6	70.0	76.4	83.4	0.6
6.0	85.5	2.6	88.1	78.3	72.4	78.9	85.9	0.6
6.5	86.7	2.8	89.5	79.2	73.5	80.1	87.1	0.6
7.0	88.1	3.1	91.2	80.1	74.9	81.5	88.5	0.6
7.5	88.6	3.2	91.8	80.5	75.8	82.0	89.0	0.6
8.0	88.6	3.3	91.9	80.7	75.9	82.2	89.2	0.6
8.5	88.8	3.3	92.1	81.1	76.0	82.4	89.4	0.6
9.0	88.7	3.3	92.0	81.2	76.1	82.4	89.4	0.6
9.5	89.3	3.3	92.6	81.8	76.6	83.0	90.0	0.6
10.0	89.4	3.3	92.7	82.3	76.8	83.1	90.1	0.6
10.5	90.1	3.3	93.4	82.9	77.2	83.8	90.8	0.6
11.0	90.9	3.3	94.2	83.5	77.9	84.5	91.5	0.6
11.5	90.7	3.3	94.0	83.2	77.7	84.3	91.3	0.6
12.0	90.0	3.0	93.0	82.7	76.9	83.5	90.5	0.6
12.5	90.0	2.8	92.8	82.2	77.1	83.5	90.5	0.5
13.0	90.3	2.6	92.9	81.9	77.1	83.6	90.6	0.5
13.5	90.3	2.6	92.9	81.6	77.5	83.8	90.8	0.5
14.0	89.5	1.6	91.1	81.0	76.9	83.0	90.0	0.5
14.5	88.8	1.6	90.4	80.2	76.3	82.3	89.3	0.5
15.0	88.7	1.5	90.4	80.0	76.3	82.3	89.3	0.5
15.5	87.5	1.3	88.8	79.2	75.4	81.0	88.0	0.5
16.0	86.6	1.2	87.8	78.6	74.8	80.2	87.2	0.5
16.5	86.2	1.1	87.3	78.7	74.9	79.9	86.9	0.5
17.0	85.8	1.0	86.8	78.3	74.6	79.7	86.7	0.7
17.5	85.2	1.0	86.2	77.8	74.3	79.2	86.2	0.2
18.0	85.1	1.0	86.1	77.3	73.9	79.0	86.0	0.2
18.5	84.6	0.9	85.5	76.7	73.3	78.5	85.5	0.2
19.0	83.3	0.9	84.2	75.8	72.0	77.2	84.2	0.2
19.5	82.0	1.0	83.0	75.0	70.8	75.9	82.9	0.2
20.0	81.8	1.2	83.0	75.0	71.0	75.8	82.8	0.2
20.5	82.4	1.3	83.7	75.7	71.5	76.1	83.1	0.2
21.0	82.7	1.2	83.9	76.0	71.6	76.2	83.2	0.2
21.5	83.4	1.2	84.6	76.5	72.7	77.1	84.1	0.2
22.0	84.5	1.4	85.9	77.1	74.2	78.6	85.6	0.2
22.5	83.9	1.3	85.2	76.6	73.6	77.9	84.9	0.2
23.0	84.3	1.4	85.7	76.7	74.0	78.6	85.6	0.5
23.5	83.7	1.4	85.1	76.2	73.6	78.0	85.0	0.5
24.0	82.4	1.4	83.8	75.3	72.4	76.6	83.6	0.5
24.5	81.4	1.4	82.8	74.5	71.4	75.8	82.8	0.5
25.0	80.8	1.4	82.2	73.8	70.3	74.9	81.9	0.5
25.5	80.4	1.4	81.8	73.4	69.8	74.5	81.5	0.5
26.0	81.1	1.4	82.5	73.7	70.3	75.1	82.1	1.1
26.5	80.1	1.3	81.4	73.3	69.6	74.3	81.3	0.5
27.0	79.5	1.4	80.9	72.9	68.7	73.3	80.3	1.1
27.5	79.1	1.3	80.4	72.6	68.2	72.8	79.8	0.5
28.0	79.2	1.3	80.5	72.6	68.9	73.1	80.1	0.5
28.5	79.5	1.2	80.7	72.8	69.5	73.6	80.6	0.2
29.0	79.2	1.2	80.4	72.6	69.1	73.2	80.2	0.2

B-144

29.5	78.2	1.2	79.4	71.8	68.0	72.0	79.0	0.2
30.0	77.4	1.1	78.5	71.2	67.1	71.0	78.0	0.5
30.5	76.9	1.2	78.1	70.9	66.6	70.3	77.3	0.7
31.0	76.7	1.3	78.0	70.7	66.5	70.2	77.2	0.7
31.5	75.9	1.3	77.2	70.3	66.1	69.7	76.7	0.7
32.0	74.8	1.3	76.1	69.2	64.8	68.4	75.4	1.5
32.5	74.2	1.5	75.7	68.4	64.5	68.2	75.2	1.5

MAXIMUM VALUES IN BANDS, PNLC = 91.7

50	63	80	100	125	160	200	250	315	400
67.7	64.1	65.9	57.6	75.1	80.3	72.8	69.7	73.6	72.4
69.0	67.1	67.5	66.8	68.3	66.4	66.3	66.8	64.9	63.1
60.2	56.7	51.9	45.9						

SPECTRUM FOR MAX PNLT

57.8	55.5	53.8	56.3	74.4	80.3	60.5	66.9	73.1	71.9
69.0	66.8	67.0	66.2	67.3	65.8	65.9	66.8	64.9	63.1
60.2	56.5	51.7	45.7						

	TIME	MAX.	D10	I-10	D20	I-20	D/15+M	D/30+M
P. T.	8.0	3.3						
PNL	11.0	90.9	21.0	100.4	32.5	100.7	92.4	91.2
PNLT	11.0	94.2	14.0	102.5	32.5	103.1	93.9	94.5
A-LEV	11.0	77.9	26.0	88.3	32.5	88.5	80.3	78.2
N-LEV	11.0	71.5	21.0	101.0	32.5	101.3	93.0	91.8

EPNL = 92.5

TSC 47G #30: FLYOVER, 75 MPH, 500 FT.

T	PNL	P.T.	PNLT	DA	A-LEV	D-LEV	N-LEV	BAND #
0.0	69.8	1.7	71.5	66.9	57.7	63.3	70.3	1.2
0.5	70.7	1.8	72.5	67.8	58.3	64.0	71.0	1.2
1.0	71.6	1.0	72.6	67.9	59.1	64.7	71.7	0.9
1.5	72.6	1.2	73.8	68.7	60.0	65.5	72.5	0.9
2.0	73.8	1.3	75.1	70.0	61.0	66.8	73.8	1.1
2.5	75.0	1.3	76.3	71.0	62.2	68.2	75.2	1.1
3.0	76.4	1.4	77.8	71.9	63.3	69.7	76.7	1.1
3.5	78.3	1.5	79.8	72.8	64.7	71.4	78.4	0.6
4.0	80.4	1.9	82.3	74.3	67.1	73.7	80.7	0.6
4.5	81.9	2.2	84.1	75.6	68.6	75.3	82.3	0.6
5.0	83.2	2.6	85.8	77.2	69.8	76.5	83.5	0.6
5.5	84.4	2.9	87.3	78.4	71.0	77.5	84.5	0.6
6.0	86.1	3.2	89.3	80.1	72.4	79.1	86.1	0.6
6.5	87.2	3.3	90.5	81.0	73.5	80.5	87.5	0.6
7.0	87.6	3.3	90.9	81.4	74.2	81.0	88.0	0.6
7.5	87.9	3.3	91.2	81.8	74.8	81.3	88.3	0.6
8.0	88.0	3.3	91.3	81.8	75.1	81.5	88.5	0.5
8.5	88.5	3.3	91.8	82.1	75.4	82.2	89.2	0.6
9.0	88.3	1.8	90.1	82.2	75.1	81.9	88.9	0.5
9.5	88.4	2.0	90.4	81.6	74.9	81.8	88.8	0.5
10.0	88.3	2.2	90.5	81.1	74.9	81.7	88.7	0.5
10.5	88.0	2.3	90.3	80.5	74.9	81.4	88.4	0.5
11.0	86.7	2.4	89.1	79.4	73.8	80.1	87.1	0.5
11.5	85.8	2.3	88.1	78.5	73.8	79.4	86.4	0.5
12.0	84.8	2.3	87.1	77.1	72.6	78.2	85.2	0.5
12.5	83.3	2.1	85.4	75.8	71.4	76.8	83.8	0.5
13.0	82.1	1.9	84.0	74.7	70.3	75.6	82.6	0.5
13.5	82.4	1.5	83.9	74.2	70.3	75.8	82.8	0.5
14.0	81.6	1.3	82.9	74.1	69.8	75.2	82.2	0.5
14.5	80.7	1.2	81.9	73.5	69.6	74.5	81.5	0.8

MAXIMUM VALUES IN BANDS. PNLC = 89.5

50	63	80	100	125	160	200	250	315	400
66.7	64.1	62.5	58.1	78.4	79.2	64.1	69.3	70.4	68.6
66.5	65.4	63.4	65.5	67.4	62.3	63.3	64.3	62.6	61.4
58.6	54.7	51.2	45.2						

SPECTRUM FOR MAX PNLT

59.8	54.6	54.7	57.6	76.9	77.9	57.4	68.9	69.5	68.6
66.4	65.4	63.0	62.7	66.3	61.0	62.1	63.7	62.6	61.4
58.6	54.3	50.6	44.7						

	TIME	MAX.	D10	I-10	D20	I-20	D/15+M	D/30+M
P.T.	6.5	3.3						
PNL	8.5	88.5	11.0	96.4	14.5	96.5	87.2	85.3
PNLT	8.5	91.8	11.0	99.1	14.5	99.1	90.5	88.6
A-LEV	8.5	75.4	11.0	83.4	14.5	83.5	74.1	72.2
N-LEV	8.5	89.2	11.0	96.9	14.5	96.9	87.9	86.0

LPNL = 89.1

B-146

TSC 47G #41: 9 DEG. APRCH., 60 MPH, 400 FT.

T	PNL	P.T.	PNLT	OA	A-LEV	D-LEV	N-LEV	BAND #
0.0	72.4	1.6	74.0	69.7	60.0	65.9	72.9	1.1
0.5	73.6	1.9	75.5	70.7	61.0	67.0	74.0	1.1
1.0	74.9	2.1	77.0	71.8	62.3	68.1	75.1	1.1
1.5	76.6	1.4	78.0	72.6	64.2	69.6	76.6	1.1
2.0	76.7	0.6	77.3	72.6	64.4	69.9	76.9	0.6
2.5	76.3	0.8	77.1	72.7	63.9	69.7	76.7	0.6
3.0	76.3	1.1	77.4	72.3	63.5	69.6	76.6	1.8
3.5	76.7	1.2	77.9	72.4	63.7	70.0	77.0	0.6
4.0	77.1	1.3	78.4	72.8	64.3	70.5	77.5	0.6
4.5	77.9	1.5	79.4	73.1	65.2	71.5	78.5	0.6
5.0	79.2	1.6	80.8	73.7	66.3	72.6	79.6	0.6
5.5	79.4	1.6	81.0	74.0	66.4	72.7	79.7	0.6
6.0	80.4	1.8	82.2	74.8	67.3	73.7	80.7	0.6
6.5	82.0	1.8	83.8	76.4	69.0	75.4	82.4	0.6
7.0	84.0	1.4	85.4	78.7	71.3	77.3	84.3	0.6
7.5	86.4	1.2	87.6	80.8	74.1	79.6	86.6	0.6
8.0	87.8	1.2	89.0	82.2	75.2	81.0	88.0	0.6
8.5	88.7	1.3	90.0	83.1	76.1	82.0	89.0	0.6
9.0	88.5	1.3	89.8	82.7	75.7	81.8	88.8	0.6
9.5	87.6	1.5	89.1	81.6	74.7	80.9	87.9	0.6
10.0	87.1	1.6	88.7	81.0	74.1	80.3	87.3	0.6
10.5	86.8	1.8	88.6	80.4	73.7	80.1	87.1	0.6
11.0	86.7	1.8	88.5	80.1	73.5	80.0	87.0	0.6
11.5	86.9	2.5	89.4	80.3	73.6	79.9	86.9	0.6
12.0	86.8	2.5	89.3	80.4	73.3	79.8	86.8	0.6
12.5	86.7	2.5	89.2	80.2	73.2	79.7	86.7	0.6
13.0	86.4	2.4	88.8	80.2	73.0	79.5	86.5	0.6
13.5	86.0	2.2	88.2	80.0	72.6	79.0	86.0	0.6
14.0	85.4	2.0	87.4	79.5	72.1	78.5	85.5	0.6
14.5	84.7	1.9	86.6	79.1	71.5	77.8	84.8	0.5
15.0	83.7	1.9	85.6	78.2	70.8	77.2	84.2	0.5
15.5	84.1	1.1	85.2	77.6	71.0	77.3	84.3	0.5
16.0	83.5	0.9	84.4	76.6	70.7	76.7	83.7	0.5
16.5	83.0	0.6	83.6	75.8	70.2	76.2	83.2	0.5
17.0	81.9	0.0	81.9	75.1	69.4	75.1	82.1	0.1
17.5	81.1	1.5	82.6	74.4	69.3	74.5	81.5	1.5
18.0	80.9	1.6	82.5	74.1	69.3	74.3	81.3	1.5
18.5	80.2	1.0	81.2	73.5	68.7	73.5	80.5	1.5
19.0	79.0	1.0	80.0	73.1	67.9	72.6	79.6	1.5
19.5	78.2	1.3	79.5	72.6	66.9	71.5	78.5	1.5
20.0	77.8	1.4	79.2	72.5	66.3	71.1	78.1	1.5
20.5	77.6	1.0	78.6	72.4	65.9	71.1	78.1	0.5
21.0	78.2	0.9	79.1	72.3	66.0	71.4	78.4	0.5
21.5	77.4	1.0	78.4	72.2	65.7	70.9	77.9	0.5
22.0	76.8	1.0	77.8	72.0	65.1	70.3	77.3	0.5
22.5	75.5	1.6	77.1	71.3	63.9	69.2	76.2	1.5
23.0	74.2	1.3	75.5	70.7	62.5	68.1	75.1	1.5
23.5	73.8	1.4	75.2	70.5	62.1	67.8	74.8	1.5
24.0	74.3	1.4	75.7	70.1	62.3	68.0	75.0	1.5
24.5	74.2	1.0	75.2	69.7	62.0	67.7	74.7	0.5
25.0	73.7	1.0	74.7	69.6	61.5	67.3	74.3	0.5

MAXIMUM VALUES IN BANDS, PNLC = 89.2

50	63	80	100	125	160	200	250	315	400
66.4	63.7	63.4	67.0	72.5	78.8	70.8	73.8	75.4	69.4
69.6	66.4	64.7	63.5	64.5	61.8	61.8	63.1	59.6	57.6
55.5	52.1	47.8	40.8						B-147



SPECTRUM FOR MAX PNLT

65.7	60.3	56.3	65.5	71.9	78.8	70.5	73.8	75.4	69.4
69.4	66.0	64.7	63.5	63.0	61.6	61.7	62.2	58.6	56.6
53.1	48.7	44.4	38.4						

	TIME	MAX.	D10	I-10	D20	I-20	D/15+M	D/30+M
P.T.	11.5	2.5						
PNL	8.5	98.7	15.0	96.9	25.0	97.2	88.7	87.9
PNLT	8.5	90.0	14.5	98.5	25.0	98.9	89.9	89.2
A-LEV	8.5	76.1	16.0	84.0	25.0	84.4	76.4	75.3
N-LEV	8.5	89.0	15.0	97.1	25.0	97.4	89.0	88.2

EPNL = 88.5



TSC 500C #58: FLYOVER, 70 MPH., 500 FT.

T	PNL	P.T.	PNLT	DA	A-LEV	D-LEV	N-LEV	BAND #
0.0	75.2	2.3	77.5	70.8	64.1	68.0	75.0	1.2
0.5	76.3	2.3	78.6	71.3	65.3	69.0	76.0	1.2
1.0	77.2	1.6	78.8	72.2	66.5	69.9	76.9	0.8
1.5	78.5	3.1	81.6	73.2	68.4	71.6	78.6	1.1
2.0	79.5	1.5	81.0	73.9	69.6	72.7	79.7	1.1
2.5	79.5	1.5	81.0	73.7	69.3	72.5	79.5	1.1
3.0	79.3	1.5	80.8	73.8	68.9	72.3	79.3	0.5
3.5	79.5	1.6	81.1	73.9	68.6	72.3	79.3	1.1
4.0	79.9	1.7	81.6	74.5	69.1	73.0	80.0	1.1
4.5	79.4	1.7	81.1	74.1	68.3	72.3	79.3	1.1
5.0	79.0	1.6	80.6	74.0	67.7	72.0	79.0	1.1
5.5	78.7	1.5	80.2	74.3	67.6	72.2	79.2	0.5
6.0	79.6	1.6	81.2	74.7	68.9	73.0	80.0	0.5
6.5	82.9	1.7	84.6	77.4	73.4	76.5	83.5	0.5
7.0	81.8	1.6	83.4	76.8	71.9	75.4	82.4	0.5
7.5	82.3	1.4	83.7	77.1	71.3	75.5	82.5	0.5
8.0	82.2	1.6	83.8	77.0	70.6	75.2	82.2	1.6
8.5	82.2	1.9	84.1	76.9	70.1	74.9	81.9	1.6
9.0	82.0	1.5	83.5	76.3	69.7	74.5	81.5	0.8
9.5	81.7	1.6	83.3	76.0	69.2	74.0	81.0	0.8
10.0	82.9	2.0	84.9	77.2	70.2	75.1	82.1	0.8
10.5	83.8	1.9	85.7	77.9	70.9	76.0	83.0	0.8
11.0	84.3	1.3	85.6	78.5	71.7	76.7	83.7	0.8
11.5	84.4	1.0	85.4	79.1	72.4	77.4	84.4	0.2
12.0	85.2	1.0	86.2	79.6	72.8	77.8	84.8	0.2
12.5	86.2	1.2	87.4	80.3	73.6	78.6	85.6	0.4
13.0	86.6	1.3	87.9	80.7	74.3	79.1	86.1	0.4
13.5	86.9	1.6	88.5	81.1	74.8	79.6	86.6	0.4
14.0	87.4	1.6	89.0	81.4	75.5	80.2	87.2	0.4
14.5	86.8	1.6	88.4	80.9	75.0	79.7	86.7	0.4
15.0	86.5	1.4	87.9	80.5	74.6	79.2	86.2	0.4
15.5	85.9	1.3	87.2	79.9	73.8	78.5	85.5	0.4
16.0	85.7	1.5	87.2	79.5	73.3	78.1	85.1	0.9
16.5	85.3	1.4	86.7	79.2	73.1	77.8	84.8	0.9
17.0	84.4	1.4	85.8	78.3	72.4	77.0	84.0	0.9
17.5	83.0	1.4	84.4	77.4	71.3	75.9	82.9	0.7
18.0	81.5	1.4	82.9	76.4	70.0	74.7	81.7	0.7
18.5	80.3	1.4	81.7	75.3	68.5	73.3	80.3	0.7
19.0	79.0	1.3	80.3	74.0	66.8	71.8	78.8	0.7
19.5	77.8	1.2	79.0	73.0	65.5	70.6	77.6	0.7
20.0	76.6	1.0	77.6	72.0	64.3	69.5	76.5	0.7
20.5	76.8	0.9	77.7	72.0	64.8	69.7	76.7	0.7
21.0	76.5	0.9	77.4	71.5	64.1	69.1	76.1	0.9
21.5	80.9	6.5	87.4	74.7	71.9	73.6	80.6	1.3
22.0	75.5	0.8	76.3	71.2	62.3	67.9	74.9	0.9
22.5	74.7	0.7	75.4	70.5	61.4	67.1	74.1	0.4
23.0	74.2	0.7	74.9	70.4	61.0	66.9	73.9	0.4
23.5	73.8	0.6	74.4	70.2	60.6	66.6	73.6	0.4
24.0	73.2	0.5	73.7	69.3	60.0	66.0	73.0	0.4

MAXIMUM VALUES IN BANDS, PNLC = 88.5

50	63	80	100	125	160	200	250	315	400
62.5	67.5	65.0	74.3	71.4	67.5	71.2	74.3	75.9	73.5
69.0	69.6	72.1	63.8	61.6	60.1	58.3	56.3	53.1	48.8
46.5	44.7	45.3	46.6						

SPECTRUM FOR MAX PNLT

B-149

58.7	60.9	58.0	74.3	70.9	66.1	65.8	64.8	75.9	73.5
69.0	68.0	66.2	62.8	61.6	59.8	58.1	56.3	53.1	48.8
46.3	44.7	44.9	46.0						

	TIME	MAX.	D10	I-10	D20	I-20	D/15+M	D/30+M
P. T.	21.5	6.5						
PNL	14.0	87.4	19.0	96.1	24.0	96.3	88.4	86.4
PNLT	14.0	89.0	18.5	97.6	24.0	98.0	89.9	88.0
A-LEV	14.0	75.5	19.0	84.3	24.0	84.6	76.5	74.5
N-LEV	14.0	87.2	19.0	95.9	24.0	96.1	88.2	86.2

EPNL = 87.6

TSC 500C #65: 6 DEG. APRCH., 69 MPH, 400 FT.

T	PNL	P. T.	PNLT	DA	A-LEV	D-LEV	N-LEV	BAND #
0.0	77.1	1.5	78.6	72.5	65.4	69.7	76.7	0.5
0.5	78.1	1.6	79.7	73.4	66.7	71.0	78.0	0.5
1.0	78.6	1.6	80.2	73.8	67.2	71.6	78.6	0.5
1.5	78.4	1.7	80.1	73.6	66.8	71.3	78.3	0.5
2.0	77.6	1.8	79.4	73.2	65.9	70.7	77.7	0.5
2.5	77.7	1.7	79.4	73.3	65.8	70.8	77.8	0.5
3.0	79.3	1.8	81.1	74.4	67.5	72.4	79.4	0.5
3.5	81.1	1.3	82.4	75.9	69.9	74.3	81.3	0.5
4.0	81.3	1.7	83.0	76.0	70.8	74.7	81.7	0.5
4.5	81.1	1.7	82.8	75.8	71.2	74.6	81.6	0.5
5.0	80.6	1.9	82.5	75.1	70.3	73.8	80.8	0.5
5.5	79.8	2.0	81.8	74.6	69.1	72.9	79.9	0.5
6.0	79.7	1.8	81.5	74.3	68.6	72.6	79.6	0.5
6.5	80.2	1.8	82.0	74.6	69.1	73.0	80.0	0.5
7.0	81.8	1.4	83.2	76.3	71.5	75.0	82.0	0.5
7.5	83.7	1.8	85.5	77.9	72.6	76.5	83.5	0.8
8.0	84.2	2.0	86.2	78.4	72.6	76.9	83.9	0.8
8.5	84.0	2.1	86.1	77.9	72.4	76.6	83.6	0.8
9.0	84.4	2.3	86.7	78.3	73.2	77.3	84.3	0.8
9.5	84.7	2.3	87.0	78.7	73.8	77.8	84.8	0.8
10.0	84.8	2.2	87.0	78.8	73.2	77.6	84.6	0.8
10.5	85.0	1.7	86.7	79.1	73.3	77.7	84.7	0.8
11.0	85.2	1.1	86.3	79.4	73.7	78.2	85.2	0.2
11.5	86.5	1.0	87.5	80.6	75.3	79.6	86.6	0.2
12.0	88.6	1.6	90.2	82.3	77.3	81.5	88.5	0.4
12.5	87.8	1.3	89.1	81.7	76.1	80.6	87.6	0.4
13.0	87.4	1.4	88.8	81.5	75.9	80.3	87.3	0.4
13.5	87.7	1.6	89.3	81.9	76.6	80.8	87.8	0.4
14.0	88.4	1.5	89.9	82.2	77.4	81.6	88.6	0.4
14.5	88.7	1.3	90.0	82.4	77.7	81.9	88.9	0.4
15.0	88.7	1.3	90.0	82.3	77.4	81.7	88.7	0.4
15.5	88.0	1.3	89.3	81.4	76.4	80.8	87.8	0.9
16.0	87.1	1.3	88.4	80.7	75.5	79.9	86.9	0.9
16.5	86.9	1.2	88.1	81.4	76.0	80.3	87.3	0.7
17.0	88.0	1.7	89.7	82.5	77.7	81.5	88.5	0.7
17.5	87.7	1.6	89.3	82.2	77.5	81.2	88.2	0.7
18.0	86.3	1.5	87.8	80.9	76.1	79.8	86.8	0.7
18.5	84.8	1.4	86.2	79.5	74.5	78.4	85.4	0.7
19.0	83.4	1.2	84.6	78.3	73.1	76.9	83.9	0.7
19.5	82.1	1.2	83.3	77.2	71.6	75.6	82.6	0.4
20.0	81.6	1.1	82.7	76.4	70.8	74.7	81.7	0.4
20.5	80.6	1.2	81.8	75.5	69.8	73.8	80.8	0.4
21.0	79.4	1.2	80.6	74.4	68.3	72.4	79.4	0.4
21.5	78.6	1.1	79.7	73.8	67.1	71.4	78.4	0.4
22.0	77.9	0.8	78.7	73.0	65.9	70.4	77.4	0.4
22.5	77.0	1.0	78.0	72.7	64.6	69.6	76.6	0.4
23.0	76.3	0.8	77.1	72.6	63.6	68.9	75.9	0.4
23.5	75.5	0.9	76.4	71.6	63.0	68.2	75.2	0.4

MAXIMUM VALUES IN BANDS, PNLC = 90.1

50	63	80	100	125	160	200	250	315	400
64.6	65.9	61.0	74.0	72.0	70.0	76.6	75.1	76.7	74.7
73.8	72.4	72.0	66.8	64.9	62.9	61.6	59.1	55.1	50.7
47.3	45.4	45.4	46.7						

SPECTRUM FOR MAX PNLT

B-151

61.1	65.0	59.1	70.3	70.5	64.1	71.3	71.1	76.7	71.4
73.8	71.4	68.1	65.4	62.9	60.7	59.6	57.2	54.2	50.1
46.2	44.5	44.9	46.1						

	TIME	MAX	D10	I-10	D20	I-20	D/15+M	D/30+M
P. T.	9.0	23						
PNL	14.5	88.7	19.0	98.0	23.5	98.2	89.7	87.6
PNLT	12.0	90.2	19.0	99.6	23.5	99.7	91.2	89.1
A-LEV	14.5	77.7	18.5	87.0	23.5	87.2	78.6	76.6
N-LEV	14.5	88.9	19.0	98.1	23.5	98.3	89.9	87.8

EPNL = 89.6

TSC 500C #109: FLYOVER, 150 MPH, 500 FT.

T	PNL	P. T.	PNLT	DA	A-LEV	D-LEV	N-LEV	BAND #
0.0	78.3	2.2	80.5	72.9	65.4	70.8	77.8	0.8
0.5	78.4	2.4	80.8	72.9	66.0	70.9	77.9	0.8
1.0	77.7	2.4	80.1	72.2	65.2	70.1	77.1	0.8
1.5	78.1	2.3	80.4	72.9	67.9	71.2	78.2	0.8
2.0	78.8	2.3	81.1	73.9	69.3	72.4	79.4	0.8
2.5	79.0	2.3	81.3	74.2	68.9	72.3	79.3	0.8
3.0	78.1	2.1	80.2	73.6	68.1	71.6	78.6	0.8
3.5	78.9	2.1	81.0	73.9	69.2	72.0	79.0	0.8
4.0	79.4	2.0	81.4	74.7	69.5	72.4	79.4	0.8
4.5	79.6	2.1	81.7	75.5	69.9	72.9	79.9	0.8
5.0	79.4	2.1	81.5	75.8	69.4	72.9	79.9	0.8
5.5	79.6	2.1	81.7	76.1	69.4	73.1	80.1	0.8
6.0	79.8	2.1	81.9	76.6	69.6	73.5	80.5	0.8
6.5	80.1	2.4	82.5	77.0	69.2	73.6	80.6	1.1
7.0	80.6	2.6	83.2	77.2	69.6	74.0	81.0	1.1
7.5	81.3	2.7	84.0	77.8	70.5	74.8	81.8	1.1
8.0	82.0	2.9	84.9	78.5	71.5	75.9	82.9	1.1
8.5	82.6	1.9	84.5	78.9	72.2	76.6	83.6	0.3
9.0	83.7	1.9	85.6	79.5	73.0	77.4	84.4	0.3
9.5	84.5	1.9	86.4	79.9	73.4	78.0	85.0	0.3
10.0	85.8	2.1	87.9	80.7	74.3	78.9	85.9	0.8
10.5	87.5	2.3	89.8	82.1	76.3	80.7	87.7	0.8
11.0	87.8	2.5	90.3	82.8	77.1	81.4	88.4	0.8
11.5	88.3	2.7	91.0	83.3	78.1	82.1	89.1	0.8
12.0	88.6	2.4	91.0	83.3	78.3	82.3	89.3	0.8
12.5	89.0	1.6	90.6	83.3	78.2	82.4	89.4	0.8
13.0	89.6	1.2	90.8	83.9	78.3	82.7	89.7	0.5
13.5	90.2	1.8	92.0	84.5	78.7	83.2	90.2	0.5
14.0	90.5	1.3	91.8	84.5	78.9	83.3	90.3	0.4
14.5	89.6	1.3	90.9	83.6	78.2	82.6	89.6	0.4
15.0	88.9	1.1	90.0	83.0	77.7	82.1	89.1	0.4
15.5	87.8	1.0	88.8	81.8	76.7	81.0	88.0	0.4
16.0	86.3	0.8	87.1	80.3	75.2	79.5	86.5	0.4
16.5	84.7	0.6	85.3	78.7	73.6	77.9	84.9	0.4
17.0	83.5	0.0	83.5	77.3	72.2	76.4	83.4	0.1
17.5	81.9	0.5	82.4	75.8	70.6	74.8	81.8	0.9
18.0	80.7	0.7	81.4	74.7	69.2	73.5	80.5	0.9
18.5	79.7	0.7	80.4	73.6	68.0	72.4	79.4	0.9
19.0	78.5	0.7	79.2	72.5	66.8	71.2	78.2	0.9
19.5	76.9	0.7	77.6	71.1	65.1	69.6	76.6	0.9
20.0	75.5	0.6	76.1	70.3	63.5	68.2	75.2	0.9

MAXIMUM VALUES IN BANDS, PNLC = 92.0

50	63	80	100	125	160	200	250	315	400
62.9	64.9	73.8	77.2	78.4	71.6	70.4	79.1	75.3	78.0
76.5	71.8	70.7	68.6	65.6	64.0	62.1	60.5	57.2	52.5
50.4	47.7	46.8	47.0						

SPECTRUM FOR MAX PNLT

62.7	62.4	63.5	75.4	78.4	70.2	67.2	73.2	74.4	75.8
74.5	71.7	70.7	68.2	65.0	63.1	61.9	59.9	56.3	51.9
49.4	47.5	46.5	47.0						

	TIME	MAX.	D10	I-10	D20	I-20	D/15+M	D/30+M	
P. T.	8.0	2.9							
PNL	14.0	90.5	12.0	97.6	20.0	98.0	89.5	88.7	B-153

PNLT	13.5	92.0	12.0	99.3	20.0	99.8	91.0	90.2
A-LEV	14.0	78.9	15.5	86.8	20.0	87.0	79.0	77.1
N-LEV	14.0	90.3	13.0	97.9	20.0	98.3	89.7	88.5

EPNL = 89.3



TSC 500C #110: FLYOVER, 130 MPH, 500 FT.

T	PNL	P.T.	PNLT	OA	A-LEV	D-LEV	N-LEV	BAND #
0.0	73.3	2.1	75.4	68.0	59.4	65.7	72.7	0.8
0.5	72.6	1.9	74.5	67.3	58.9	65.2	72.2	0.8
1.0	73.3	2.1	75.4	67.8	59.9	65.8	72.8	0.8
1.5	73.2	2.2	75.4	67.7	60.1	65.6	72.6	0.8
2.0	72.8	2.2	75.0	67.3	60.4	65.3	72.3	0.8
2.5	73.9	2.3	76.2	68.4	63.0	66.7	73.7	0.8
3.0	75.3	2.2	77.5	69.6	65.5	68.3	75.3	0.8
3.5	75.1	2.1	77.2	69.9	64.9	68.3	75.3	0.8
4.0	76.7	2.2	78.9	71.6	66.9	70.0	77.0	1.2
4.5	77.8	2.7	80.5	72.5	68.2	71.0	78.0	1.2
5.0	78.0	2.4	80.4	73.0	68.3	71.1	78.1	1.3
5.5	78.2	2.3	80.5	73.6	68.4	71.5	78.5	0.8
6.0	77.6	2.3	79.9	73.5	67.6	71.1	78.1	0.8
6.5	77.0	2.2	79.2	73.2	66.2	70.3	77.3	0.8
7.0	77.0	2.3	79.3	73.6	65.9	70.4	77.4	0.8
7.5	76.9	2.2	79.1	73.9	65.7	70.4	77.4	0.8
8.0	76.7	2.2	78.9	74.2	65.2	70.3	77.3	0.8
8.5	76.7	2.3	79.0	74.2	64.5	70.1	77.1	0.8
9.0	77.8	2.5	80.3	75.1	66.2	71.2	78.2	0.8
9.5	78.7	2.5	81.2	75.9	68.1	72.6	79.6	0.8
10.0	79.5	2.3	81.8	76.6	69.2	73.4	80.4	0.8
10.5	80.2	2.0	82.2	76.8	69.8	73.8	80.8	0.8
11.0	81.2	2.0	83.2	77.3	71.0	74.8	81.8	1.1
11.5	81.8	2.4	84.2	77.7	71.3	75.3	82.3	1.1
12.0	81.8	2.3	84.1	77.8	71.2	75.4	82.4	1.1
12.5	82.4	2.6	85.0	78.4	72.1	76.2	83.2	1.1
13.0	83.8	1.8	85.6	79.4	73.3	77.6	84.6	0.3
13.5	84.6	1.8	86.4	79.6	73.6	78.0	85.0	0.5
14.0	85.2	1.8	87.0	79.9	74.2	78.5	85.5	0.5
14.5	85.4	1.9	87.3	79.9	74.2	78.6	85.6	0.5
15.0	85.8	2.1	87.9	80.3	74.8	79.0	86.0	0.8
15.5	85.8	2.3	88.1	80.7	75.3	79.4	86.4	0.8
16.0	86.1	2.6	88.7	80.8	75.7	79.7	86.7	0.8
16.5	86.6	2.4	89.0	81.0	75.9	80.0	87.0	0.8
17.0	87.4	1.5	88.9	81.6	76.2	80.6	87.6	0.8
17.5	88.1	1.1	89.2	82.6	76.9	81.4	88.4	0.5
18.0	88.6	1.7	90.3	83.5	77.2	81.9	88.9	0.4
18.5	89.3	1.5	90.8	84.0	77.6	82.3	89.3	0.4
19.0	89.8	1.5	91.3	84.0	78.0	82.6	89.6	0.4
19.5	88.9	1.4	90.3	83.1	77.3	81.9	88.9	0.4
20.0	87.9	1.2	89.1	82.0	76.2	80.9	87.9	0.4
20.5	86.7	1.1	87.8	80.8	75.2	79.7	86.7	0.4
21.0	85.0	1.0	86.0	79.4	73.7	78.2	85.2	0.4
21.5	83.8	0.9	84.7	77.8	72.3	76.7	83.7	0.7
22.0	82.3	1.0	83.3	76.3	70.8	75.1	82.1	1.1
22.5	80.9	0.6	81.5	75.1	69.5	73.8	80.8	0.9
23.0	79.6	0.6	80.2	74.0	67.9	72.4	79.4	0.4
23.5	78.5	0.7	79.2	72.7	66.8	71.2	78.2	0.9
24.0	77.8	0.6	78.4	72.0	65.9	70.5	77.5	0.9
24.5	76.6	0.6	77.2	71.1	64.8	69.4	76.4	0.9
25.0	75.4	0.6	76.0	70.1	63.5	68.2	75.2	0.9

MAXIMUM VALUES IN BANDS, PNLC = 90.7

50	63	80	100	125	160	200	250	315	400
61.5	64.5	71.7	77.8	77.5	70.6	71.9	77.4	76.1	76.3
73.8	70.7	68.4	65.6	64.6	62.8	60.8	59.1	55.1	52.2
50.5	47.7	47.0	44.8						

SPECTRUM FOR MAX PNLT

60.1	58.2	61.0	77.4	76.1	69.3	65.0	69.5	75.4	76.3
73.6	70.7	68.4	65.6	64.6	62.8	60.7	58.8	55.0	51.9
50.1	47.6	47.0	46.6						
	TIME	MAX.	D10	I-10	D20	I-20	D/15+M	D/30+M	
P. T.	4.5	2.7							
PNL	19.0	89.8	13.0	97.0	25.0	97.5	89.2	89.0	
PNLT	19.0	91.3	13.5	98.7	25.0	99.2	90.8	90.5	
A-LEV	19.0	78.0	14.0	85.9	25.0	86.3	77.7	77.2	
N-LEV	19.0	89.6	13.5	97.3	25.0	97.7	89.1	88.8	

EPNL = 88.7

TSC S-61 #16: 9 DEG. APRCH., 60 KT., 400 FT.

T	PNL	P.T.	PNLT	DA	A-LEV	D-LEV	N-LEV	BAND #
0.0	76.6	1.9	78.5	71.7	64.2	69.1	76.1	0.5
0.5	77.4	1.8	79.2	72.2	65.1	69.8	76.8	0.5
1.0	78.6	1.8	80.4	73.4	66.5	71.1	78.1	0.5
1.5	80.7	1.9	82.6	74.8	68.8	73.3	80.3	0.5
2.0	83.2	1.9	85.1	77.3	71.7	76.1	83.1	0.5
2.5	84.4	1.8	86.2	78.4	72.9	77.4	84.4	0.5
3.0	83.0	1.8	84.8	77.1	71.2	75.8	82.8	0.5
3.5	81.8	2.0	83.8	76.3	69.6	74.4	81.4	0.5
4.0	81.1	1.8	82.9	75.7	68.8	73.6	80.6	0.5
4.5	80.9	1.9	82.8	75.5	68.6	73.5	80.5	0.5
5.0	80.4	1.9	82.3	75.3	68.2	73.1	80.1	0.5
5.5	80.6	1.9	82.5	76.0	68.0	73.1	80.1	0.5
6.0	80.4	1.8	82.2	75.6	67.7	72.8	79.8	0.5
6.5	80.3	1.8	82.1	75.6	67.4	72.6	79.6	0.5
7.0	80.9	1.9	82.8	75.8	68.1	73.2	80.2	0.5
7.5	81.3	1.9	83.2	75.8	68.3	73.5	80.5	0.5
8.0	82.0	1.9	83.9	76.4	69.0	74.3	81.3	0.5
8.5	82.1	1.9	84.0	76.4	69.2	74.4	81.4	0.5
9.0	81.7	1.8	83.5	76.4	68.9	74.3	81.3	0.5
9.5	82.5	1.9	84.4	76.9	69.8	75.4	82.4	0.5
10.0	83.4	2.0	85.4	77.5	71.1	76.6	83.6	0.5
10.5	84.6	2.0	86.6	78.0	72.3	77.6	84.6	0.5
11.0	85.1	2.0	87.1	78.5	72.7	77.8	84.8	0.5
11.5	85.1	2.0	87.1	78.2	72.4	77.6	84.6	0.8
12.0	85.2	2.2	87.4	78.2	72.5	77.8	84.8	0.8
12.5	85.5	2.3	87.8	78.2	72.7	78.1	85.1	0.8
13.0	85.5	2.1	87.6	78.2	72.4	78.1	85.1	0.8
13.5	85.4	2.2	87.6	78.1	72.1	78.0	85.0	0.8
14.0	85.4	2.3	87.7	78.0	71.9	77.9	84.9	0.8
14.5	85.7	2.3	88.0	78.1	72.5	78.3	85.3	0.8
15.0	86.5	2.3	88.8	78.9	73.5	79.3	86.3	0.8
15.5	87.1	1.9	89.0	79.6	74.8	80.5	87.5	0.8
16.0	87.7	1.5	89.2	80.2	75.3	81.1	88.1	0.5
16.5	89.0	1.5	90.5	81.4	76.4	82.1	89.1	0.5
17.0	89.9	1.3	91.2	82.4	77.4	83.0	90.0	0.5
17.5	91.6	1.4	93.0	83.5	78.9	84.6	91.6	0.5
18.0	92.1	1.6	93.7	84.9	79.4	85.0	92.0	0.5
18.5	92.4	1.6	94.0	86.0	79.8	85.3	92.3	0.5
19.0	92.4	1.7	94.1	86.6	79.9	85.5	92.5	0.4
19.5	92.1	1.0	93.1	86.4	80.0	85.3	92.3	0.4
20.0	91.9	0.7	92.6	86.0	80.0	85.1	92.1	0.4
20.5	91.7	0.6	92.3	86.3	79.6	84.9	91.9	0.4
21.0	91.8	0.5	92.3	86.3	79.4	84.8	91.8	0.5
21.5	90.5	0.0	90.5	84.8	78.3	83.7	90.7	0.1
22.0	89.0	0.0	89.0	83.2	77.0	82.2	89.2	0.1
22.5	87.5	0.0	87.5	81.7	75.5	80.8	87.8	0.1
23.0	86.4	0.0	86.4	80.6	74.4	79.6	86.6	0.1
23.5	84.8	0.0	84.8	78.9	72.8	78.0	85.0	0.1
24.0	83.7	0.0	83.7	77.6	71.7	76.9	83.9	0.1
24.5	83.2	0.0	83.2	76.6	71.2	76.3	83.3	0.1
25.0	83.0	0.0	83.0	75.8	70.7	76.0	83.0	0.1
25.5	82.1	0.0	82.1	74.9	69.9	75.1	82.1	0.1
26.0	80.8	0.7	81.5	73.9	68.6	73.8	80.8	0.4
26.5	80.4	0.8	81.2	73.9	68.0	73.3	80.3	0.4
27.0	79.6	1.0	80.6	73.6	66.9	72.5	79.5	0.4
27.5	78.7	1.1	79.8	73.4	66.3	71.7	78.7	0.4
28.0	79.0	1.2	80.2	73.6	67.7	72.2	79.2	0.4
28.5	78.6	1.6	80.2	73.1	67.1	71.4	78.4	1.3

MAXIMUM VALUES IN BANDS, PNLC = 93.4

50	63	80	100	125	160	200	250	315	400
71.0	69.7	66.2	79.0	80.9	80.8	76.7	75.1	75.6	74.1
73.6	73.4	71.9	70.1	68.7	67.3	67.1	66.8	64.3	61.3
58.3	55.5	51.9	48.2						

SPECTRUM FOR MAX PNLT

70.6	67.4	65.2	79.0	80.9	77.2	72.5	74.6	73.8	73.5
72.4	72.8	71.6	69.8	68.5	66.7	66.8	65.5	63.4	61.1
58.3	55.5	51.8	48.2						

	TIME	MAX.	D10	I-10	D20	I-20	D/15+M	D/30+M
P.T.	12.5	2.3						
PNL	18.5	92.4	16.5	100.7	28.5	101.2	92.8	92.2
PNLT	19.0	94.1	15.0	101.8	28.5	102.5	94.1	93.9
A-LEV	19.5	80.0	16.0	88.3	28.5	88.8	80.3	79.8
N-LEV	19.0	92.5	16.0	100.7	28.5	101.2	92.8	92.3

LPNL = 91.8

## TSC S-61 #18: FLYOVER, 60 KT., 500 FT.

T	PNL	P. T.	PNLT	OA	A-LEV	D-LEV	N-LEV	BAND #
0.0	80.2	0.6	80.8	75.5	68.5	73.1	80.1	0.5
0.5	81.2	1.0	82.2	76.3	69.7	74.0	81.0	1.1
1.0	83.6	1.2	84.8	77.7	72.6	76.3	83.3	1.1
1.5	85.9	1.9	87.8	79.9	75.3	78.9	85.9	1.1
2.0	86.6	1.9	88.5	80.4	76.2	79.7	86.7	1.1
2.5	86.3	1.4	87.7	80.4	76.3	79.9	86.9	1.4
3.0	86.5	1.5	88.0	80.5	76.4	80.1	87.1	1.4
3.5	86.0	1.4	87.4	80.1	75.7	79.5	86.5	1.4
4.0	85.0	2.6	87.6	79.2	74.6	78.5	85.5	1.1
4.5	84.6	1.2	85.8	78.5	74.0	77.9	84.9	0.5
5.0	83.6	1.3	84.9	77.3	72.7	76.6	83.6	0.5
5.5	82.9	1.3	84.2	76.7	71.7	75.8	82.8	0.5
6.0	81.8	1.3	83.1	75.7	70.4	74.7	81.7	0.5
6.5	81.3	1.3	82.6	75.4	69.9	74.2	81.2	0.5
7.0	83.0	1.3	84.3	76.6	71.6	75.8	82.8	1.1
7.5	84.5	1.6	86.1	78.1	73.3	77.5	84.5	1.3
8.0	84.8	1.5	86.3	77.8	73.8	78.1	85.1	1.3
8.5	85.1	1.2	86.3	78.4	73.8	78.2	85.2	1.3
9.0	85.1	1.1	86.2	78.2	73.7	78.2	85.2	0.5
9.5	86.0	1.2	87.2	79.0	74.4	78.8	85.8	0.5
10.0	86.3	1.2	87.5	79.6	74.6	79.3	86.3	0.5
10.5	86.6	1.3	87.9	80.5	75.1	79.8	86.8	0.5
11.0	86.7	1.1	87.8	80.6	75.7	80.2	87.2	0.5
11.5	86.8	0.8	87.6	80.9	75.4	80.2	87.2	0.2
12.0	88.4	1.0	89.4	81.6	76.7	81.8	88.8	0.8
12.5	89.0	0.9	89.9	82.0	77.0	82.2	89.2	0.2
13.0	89.8	1.0	90.8	82.6	78.0	83.2	90.2	0.2
13.5	90.1	1.0	91.1	82.8	78.4	83.4	90.4	0.2
14.0	90.0	1.0	91.0	83.0	78.5	83.4	90.4	0.8
14.5	90.7	0.9	91.6	83.7	79.4	84.0	91.0	0.2
15.0	90.9	0.8	91.7	83.5	79.4	84.1	91.1	0.2
15.5	91.2	0.9	92.1	83.4	79.6	84.4	91.4	0.5
16.0	91.1	1.3	92.4	83.3	79.6	84.3	91.3	0.5
16.5	91.1	1.7	92.8	83.8	79.7	84.4	91.4	0.4
17.0	90.8	1.2	92.0	84.1	79.3	84.1	91.1	0.4
17.5	89.8	1.5	91.3	83.7	78.6	83.2	90.2	0.4
18.0	89.4	1.7	91.1	83.4	78.3	82.8	89.8	0.4
18.5	88.7	1.2	89.9	82.6	77.7	82.1	89.1	0.4
19.0	88.1	1.3	89.4	81.7	77.4	81.6	88.6	0.4
19.5	87.7	1.2	88.9	81.0	77.1	81.2	88.2	0.4
20.0	87.5	1.1	88.6	80.8	77.0	81.1	88.1	0.4
20.5	86.9	0.8	87.7	80.2	76.2	80.5	87.5	0.4
21.0	86.3	0.6	86.9	79.7	75.5	79.8	86.8	0.4
21.5	85.9	0.6	86.5	79.2	75.1	79.4	86.4	0.7
22.0	85.5	0.6	86.1	78.8	74.6	78.9	85.9	0.7
22.5	84.9	0.0	84.9	78.6	74.1	78.4	85.4	0.1
23.0	84.8	0.0	84.8	78.3	73.9	78.1	85.1	0.1
23.5	83.8	0.0	83.8	77.5	72.9	77.1	84.1	0.1
24.0	82.6	0.0	82.6	76.6	71.5	75.8	82.8	0.1
24.5	81.5	0.0	81.5	76.0	70.2	74.6	81.6	0.1
25.0	80.2	0.0	80.2	75.5	68.7	73.3	80.3	0.1
25.5	79.0	0.0	79.0	75.6	67.3	72.2	79.2	0.1
26.0	78.3	0.0	78.3	75.0	66.7	71.5	78.5	0.1
26.5	78.2	0.0	78.2	75.2	66.8	71.5	78.5	0.1
27.0	77.3	1.4	78.7	74.0	66.2	70.6	77.6	1.3
27.5	76.5	1.1	77.6	73.2	65.2	69.7	76.7	1.3
28.0	75.6	1.1	76.7	72.1	64.0	68.6	75.6	1.3

MAXIMUM VALUES IN BANDS, PNLC = 92.5

B-159

50	63	80	100	125	160	200	250	315	400
72.6	76.1	70.9	78.5	76.7	72.5	72.4	74.7	71.4	75.8
75.2	72.5	72.4	72.0	70.6	68.7	67.4	66.0	62.9	59.5
53.5	49.8	47.1	46.5						

SPECTRUM FOR MAX PNLT

69.0	68.0	62.2	75.4	76.7	70.6	69.0	68.8	70.7	69.2
71.3	72.5	72.4	71.5	70.5	68.5	67.4	65.8	61.9	58.1
53.5	49.8	46.8	46.4						

	TIME	MAX.	D10	I-10	D20	I-20	D/15+M	D/30+M
P.T.	4.0	2.6						
PNL	15.5	91.2	24.5	101.2	28.0	101.3	93.3	90.9
PNLT	16.5	92.8	17.5	101.6	28.0	102.5	93.5	92.5
A-LEV	16.5	79.7	24.5	90.1	28.0	90.1	81.8	79.4
N-LEV	15.5	91.4	18.5	100.9	28.0	101.6	92.3	91.1

EPNL = 91.6



TSC S-61 #20: 6 DEG. APRCH., 60 KT., 400 FT.

T	PNL	P.T.	PNLT	DA	A-LEV	D-LEV	N-LEV	BAND #
0.0	85.9	1.5	87.4	80.3	73.6	78.8	85.8	0.5
0.5	86.6	1.7	88.3	80.8	74.3	79.4	86.4	0.5
1.0	87.0	1.6	88.6	81.0	74.5	79.6	86.6	0.5
1.5	87.4	1.7	89.1	81.4	75.2	80.2	87.2	0.5
2.0	87.5	1.7	89.2	81.6	75.5	80.4	87.4	0.5
2.5	87.7	1.7	89.4	81.8	74.9	80.1	87.1	0.5
3.0	87.8	1.9	89.7	81.6	74.9	80.1	87.1	0.5
3.5	88.0	1.8	89.8	81.4	74.8	80.2	87.2	0.8
4.0	88.0	1.8	89.8	81.1	74.6	80.3	87.3	0.8
4.5	88.5	1.7	90.2	81.5	75.2	81.1	88.1	0.8
5.0	90.1	1.5	91.6	83.4	77.2	82.9	89.9	0.8
5.5	90.9	1.4	92.3	84.4	78.0	83.6	90.6	0.8
6.0	91.2	1.0	92.2	84.6	78.4	84.1	91.1	0.5
6.5	92.1	0.7	92.8	85.6	79.9	85.5	92.5	0.5
7.0	93.0	0.5	93.5	86.3	80.4	86.2	93.2	0.2
7.5	93.3	0.0	93.3	87.0	80.6	86.4	93.4	0.1
8.0	93.6	1.2	94.8	88.0	80.9	86.7	93.7	0.5
8.5	93.9	1.3	95.2	88.5	81.4	87.0	94.0	0.4
9.0	94.6	1.3	95.9	89.8	81.7	87.5	94.5	0.4
9.5	94.9	0.8	95.7	90.6	82.0	87.9	94.9	0.4
10.0	95.7	0.7	96.4	91.6	82.7	88.7	95.7	0.4
10.5	95.7	0.7	96.4	91.5	82.6	88.6	95.6	0.4
11.0	95.8	0.7	96.5	91.8	83.1	89.0	96.0	0.9
11.5	95.5	0.6	96.1	91.6	82.8	88.8	95.8	0.9
12.0	95.0	0.0	95.0	90.8	82.2	88.1	95.1	0.1
12.5	94.2	0.5	94.7	89.8	81.1	87.1	94.1	0.7
13.0	93.1	0.6	93.7	88.6	80.0	86.0	93.0	0.2
13.5	92.0	0.5	92.5	87.4	79.1	84.9	91.9	0.2
14.0	90.7	0.7	91.4	86.1	78.0	83.7	90.7	0.2
14.5	89.8	0.6	90.4	85.0	77.0	82.7	89.7	0.2
15.0	88.4	0.7	89.1	83.5	75.8	81.3	88.3	0.2
15.5	87.9	0.6	88.5	82.9	75.6	81.0	88.0	0.2
16.0	87.2	0.7	87.9	81.8	74.8	80.1	87.1	0.2
16.5	86.1	0.5	86.6	80.6	73.6	78.8	85.8	0.2
17.0	84.9	0.0	84.9	79.3	72.4	77.5	84.5	0.1
17.5	84.0	0.0	84.0	78.6	71.4	76.6	83.6	0.1
18.0	83.0	0.0	83.0	78.2	70.4	75.8	82.8	0.1
18.5	82.3	0.7	83.0	77.7	69.7	75.1	82.1	0.2
19.0	81.7	0.9	82.6	77.1	68.8	74.3	81.3	0.2
19.5	81.1	1.1	82.2	76.4	67.9	73.6	80.6	0.2
20.0	80.9	1.1	82.0	76.3	67.5	73.3	80.3	0.2
20.5	80.2	0.9	81.1	75.8	66.6	72.7	79.7	0.2

MAXIMUM VALUES IN BANDS, PNLC = 97.1

50	63	80	100	125	160	200	250	315	400
72.7	72.7	69.9	82.5	86.0	86.8	84.8	81.5	82.6	79.5
76.6	74.1	72.5	70.3	69.5	67.9	67.5	67.5	65.5	61.5
57.5	54.6	51.1	47.7						

SPECTRUM FOR MAX PNLT

70.8	69.5	65.6	78.6	84.5	86.8	83.8	78.2	82.6	78.4
76.6	73.2	71.8	69.3	68.5	66.5	64.5	63.4	60.8	58.3
55.4	52.8	49.7	47.2						

P.T.	TIME	MAX.	D10	I-10	D20	I-20	D/15+M	D/30+M
	3.0	1.9		R-161				

PNL	11.0	95.8	17.0	104.3	20.5	104.4	96.3	94.1
PNLT	11.0	96.5	17.0	105.2	20.5	105.3	97.0	94.8
A-LEV	11.0	83.1	17.0	91.5	20.5	91.7	83.6	81.4
N-LEV	11.0	96.0	16.5	104.3	20.5	104.4	96.4	94.3

EPNL = 95.2

TSC S-61 #34: FLYOVER, 115 KT., 500 FT.

T	PNL	P.T.	PNLT	DA	A-LEV	D-LEV	N-LEV	BAND #
0.0	78.5	3.3	81.8	74.0	64.7	70.7	77.7	1.6
0.5	81.9	2.8	84.7	75.0	69.2	74.3	81.3	1.6
1.0	83.8	2.2	86.0	76.0	71.8	76.6	83.6	1.6
1.5	84.4	2.1	86.5	76.3	72.1	77.1	84.1	1.6
2.0	84.3	2.3	86.6	76.3	71.9	76.8	83.8	1.6
2.5	85.6	1.8	87.4	77.8	74.2	78.5	85.5	1.6
3.0	86.7	1.6	88.3	79.2	76.2	80.3	87.3	0.5
3.5	86.4	1.6	88.0	79.2	75.8	80.2	87.2	0.5
4.0	87.7	1.7	89.4	80.2	77.3	81.5	88.5	0.8
4.5	89.0	1.8	90.8	81.6	78.8	82.9	89.9	0.8
5.0	90.1	2.0	92.1	82.9	80.1	84.2	91.2	0.8
5.5	91.9	1.8	93.7	84.2	81.5	85.8	92.8	0.8
6.0	93.9	1.3	95.2	85.7	83.1	87.6	94.6	0.8
6.5	94.3	1.7	96.0	85.9	82.9	87.7	94.7	0.5
7.0	94.1	1.7	95.8	86.2	82.4	87.4	94.4	0.5
7.5	93.7	1.3	95.0	86.6	82.0	86.9	93.9	0.4
8.0	93.0	1.6	94.6	85.9	81.3	86.3	93.3	0.4
8.5	92.0	1.5	93.5	85.0	80.6	85.4	92.4	0.4
9.0	90.9	1.4	92.3	83.8	79.8	84.4	91.4	0.4
9.5	89.5	1.3	90.8	82.4	78.5	83.0	90.0	0.4
10.0	87.9	1.2	89.1	80.9	77.0	81.4	88.4	0.4
10.5	86.6	1.0	87.6	79.7	75.6	80.0	87.0	0.4
11.0	86.0	0.7	86.7	79.1	74.9	79.2	86.2	0.4
11.5	84.6	0.6	85.2	77.9	73.9	78.1	85.1	0.7
12.0	83.9	0.0	83.9	77.0	73.2	77.2	84.2	0.1
12.5	83.7	0.0	83.7	77.0	73.3	77.0	84.0	0.1
13.0	83.4	0.0	83.4	76.7	73.2	76.8	83.8	0.1
13.5	82.5	0.0	82.5	76.0	72.4	76.0	83.0	0.1
14.0	80.8	0.0	80.8	74.6	70.4	74.2	81.2	0.1
14.5	79.3	0.0	79.3	74.4	68.5	72.5	79.5	0.1
15.0	78.2	0.0	78.2	73.9	67.0	71.3	78.3	0.1

MAXIMUM VALUES IN BANDS. PNLC = 95.0

50	63	80	100	125	160	200	250	315	400
70.0	69.4	66.5	80.9	79.4	70.9	70.2	77.8	74.9	75.5
75.7	76.5	75.9	75.0	73.0	70.4	70.2	69.4	67.1	64.2
58.5	53.6	48.5	46.8						

SPECTRUM FOR MAX PNLT

70.0	68.4	63.9	69.4	77.7	69.7	68.8	75.9	73.4	74.9
75.7	76.1	75.3	74.5	72.6	70.4	70.2	69.4	67.1	64.2
58.4	52.8	47.7	46.4						

	TIME	MAX.	D10	I-10	D20	I-20	D/15+M	D/30+M
P.T.	0.0	3.3						
PNL	6.5	94.3	10.0	100.6	15.0	100.9	92.5	91.3
PNLT	6.5	96.0	10.5	102.2	15.0	102.5	94.5	93.0
A-LEV	6.0	83.1	11.5	89.7	15.0	89.8	81.9	80.1
N-LEV	6.5	94.7	10.0	101.1	15.0	101.4	92.9	91.7

EPNL = 92.2

B-163

TSC S-64: FLYOVER, 60 KT., 500 FT. TSC S-64 #50: FLYOVER, 60 KT., 500 FT.

T	PNL	P.T.	PNLT	OA	A-LEV	D-LEV	N-LEV	BAND #
0.0	81.1	1.6	82.7	80.4	66.0	74.1	81.1	0.2
0.5	81.7	1.7	83.4	81.0	66.9	74.6	81.6	0.2
1.0	82.3	1.6	83.9	80.7	67.7	74.8	81.8	0.2
1.5	82.4	1.8	84.2	81.0	68.0	75.0	82.0	0.2
2.0	82.6	1.8	84.4	81.3	68.1	75.2	82.2	0.2
2.5	83.0	1.9	84.9	81.7	68.5	75.6	82.6	0.2
3.0	83.2	2.0	85.2	82.2	68.6	75.9	82.9	0.2
3.5	83.1	1.8	84.9	81.5	68.5	75.7	82.7	0.2
4.0	83.0	2.0	85.0	82.0	68.3	75.7	82.7	0.2
4.5	82.8	1.8	84.6	81.4	68.3	75.5	82.5	0.2
5.0	82.7	1.7	84.4	81.5	68.2	75.4	82.4	0.2
5.5	83.3	1.6	84.9	82.0	69.1	76.1	83.1	0.2
6.0	84.1	1.4	85.5	81.6	70.5	76.7	83.7	0.2
6.5	84.6	1.7	86.3	82.6	70.8	77.2	84.2	0.2
7.0	84.2	1.5	85.7	82.2	70.3	76.8	83.8	0.2
7.5	84.7	1.4	86.1	82.2	70.9	77.2	84.2	0.2
8.0	84.8	1.7	86.5	82.7	70.9	77.4	84.4	0.2
8.5	84.7	1.8	86.5	83.2	70.9	77.4	84.4	0.2
9.0	85.2	1.5	86.7	83.1	71.6	77.7	84.7	0.2
9.5	86.0	1.5	87.5	84.3	72.7	78.7	85.7	0.2
10.0	87.1	1.2	88.3	84.6	73.8	79.6	86.6	0.2
10.5	87.6	1.3	88.9	85.4	74.4	80.1	87.1	0.2
11.0	89.1	1.4	90.5	86.2	75.7	81.5	88.5	0.2
11.5	90.7	1.4	92.1	86.8	77.3	82.9	89.9	0.2
12.0	92.5	1.7	94.2	88.4	78.8	84.5	91.5	0.2
12.5	94.7	1.5	96.2	90.0	81.2	86.9	93.9	0.2
13.0	95.5	1.8	97.3	90.9	82.2	87.9	94.9	0.7
13.5	95.2	1.6	96.8	90.8	82.0	87.7	94.7	0.2
14.0	96.8	1.5	98.3	92.0	83.1	89.0	96.0	0.2
14.5	96.3	1.7	98.0	91.1	82.6	88.3	95.3	0.2
15.0	95.4	1.7	97.1	90.0	82.0	87.4	94.4	0.2
15.5	94.9	1.8	96.7	89.3	81.6	87.0	94.0	0.2
16.0	94.9	1.8	96.7	89.3	82.2	87.3	94.3	0.2
16.5	95.2	1.8	97.0	89.4	83.0	87.9	94.9	0.2
17.0	94.7	1.7	96.4	89.3	82.8	87.7	94.7	0.2
17.5	94.8	1.7	96.5	89.3	82.6	87.5	94.5	0.2
18.0	94.2	1.6	95.8	88.6	82.4	87.1	94.1	0.5
18.5	93.4	1.4	94.8	87.8	81.8	86.4	93.4	0.4
19.0	92.9	1.2	94.1	87.5	81.2	86.0	93.0	0.4
19.5	92.3	1.1	93.4	86.5	80.7	85.3	92.3	0.4
20.0	91.4	1.0	92.4	85.5	79.7	84.4	91.4	0.4
20.5	90.4	0.8	91.2	85.0	78.8	83.3	90.3	0.4
21.0	89.7	0.5	90.2	84.5	78.0	82.6	89.6	0.6
21.5	89.4	0.5	89.9	84.9	77.6	82.2	89.2	0.6
22.0	89.3	0.6	89.9	85.3	77.4	82.1	89.1	1.0
22.5	88.7	0.0	88.7	85.2	77.2	81.7	88.7	0.1
23.0	88.9	1.1	90.0	85.1	77.4	81.6	88.6	1.5
23.5	88.7	1.3	90.0	85.1	77.2	81.4	88.4	1.5
24.0	88.3	0.5	88.8	84.8	76.7	81.0	88.0	0.4
24.5	88.3	1.1	89.4	84.8	76.7	80.9	87.9	1.5
25.0	88.1	1.0	89.1	84.2	76.5	80.7	87.7	1.5
25.5	87.7	0.0	87.7	84.2	76.2	80.4	87.4	0.1
26.0	86.9	0.5	87.4	83.1	75.3	79.6	86.6	0.4
26.5	86.1	0.5	86.6	82.9	74.5	78.9	85.9	0.4
27.0	85.4	0.5	85.9	81.8	73.7	78.0	85.0	0.4
27.5	84.8	1.1	85.9	81.7	73.0	77.4	84.4	1.3
28.0	84.2	1.3	85.5	80.7	72.3	76.6	83.6	1.3
28.5	82.9	1.3	84.2	80.0	70.9	75.6	82.6	1.3
29.0	81.8	1.0	82.8	79.1	69.5	74.6	81.6	1.3

B-164

29.5	80.8	0.5	81.3	78.7	68.2	73.9	80.9	0.4
30.0	80.1	1.0	81.1	78.5	66.9	73.3	80.3	0.4
30.5	79.8	1.0	80.8	77.4	66.3	72.8	79.8	0.4

MAXIMUM VALUES IN BANDS, PNLC = 98.5

50	63	80	100	125	160	200	250	315	400
82.0	85.1	76.4	79.3	84.3	81.6	87.7	84.8	78.8	76.7
75.9	74.6	74.8	75.0	73.3	71.7	68.9	66.3	62.7	58.6
57.2	55.9	55.0	55.9						

SPECTRUM FOR MAX PNLT

75.8	84.6	74.9	67.6	73.0	81.6	87.7	84.4	75.4	76.5
75.5	73.9	72.5	70.5	68.4	67.7	66.3	64.0	59.3	54.8
53.1	55.6	54.4	55.6						

	TIME	MAX.	D10	I-10	D20	I-20	D/15+M	D/30+M
P. T.	3.0	2.0						
PNL	14.0	96.8	17.0	104.9	30.5	105.3	97.3	96.9
PNLT	14.0	98.3	15.5	106.3	30.5	106.8	98.4	98.4
A-LEV	14.0	83.1	18.0	92.4	30.5	92.7	83.9	83.2
N-LEV	14.0	96.0	17.0	104.4	30.5	104.9	96.5	96.1

EPNL = 96.3



TSC S-64 #51: 6 DEG. APRCH., 60 KT., 400 FT.

T	PNL	P.T.	PNLT	DA	A-LEV	D-LEV	N-LEV	BAND #
0.0	83.7	2.0	85.9	84.1	67.0	76.3	83.3	0.2
0.5	83.1	1.9	85.0	83.0	67.0	75.7	82.7	0.2
1.0	82.5	1.6	84.1	82.2	66.8	75.3	82.3	0.2
1.5	82.1	1.6	83.7	81.5	67.1	75.2	82.2	0.2
2.0	82.2	1.5	83.7	81.4	67.5	75.3	82.3	0.2
2.5	82.5	1.1	83.6	80.7	67.6	75.2	82.2	0.2
3.0	82.7	0.8	83.5	81.1	67.8	75.5	82.5	0.7
3.5	83.3	1.2	84.5	81.2	68.5	75.8	82.8	1.4
4.0	86.4	2.0	88.4	86.4	69.4	78.3	85.3	0.2
4.5	86.3	2.1	88.4	86.3	69.5	78.3	85.3	0.2
5.0	86.3	2.2	88.5	86.4	69.3	78.2	85.2	0.2
5.5	84.7	1.9	86.8	84.7	68.8	77.2	84.2	0.2
6.0	84.3	1.8	86.1	84.0	68.4	76.8	83.8	0.2
6.5	84.4	1.8	86.2	84.2	68.4	76.8	83.8	0.2
7.0	84.7	1.8	86.5	84.4	69.0	77.2	84.2	0.2
7.5	84.8	1.6	86.4	84.4	69.8	77.7	84.7	0.2
8.0	85.0	1.5	86.5	84.0	70.8	78.1	85.1	0.2
8.5	85.8	1.6	87.4	84.5	71.9	78.8	85.8	0.2
9.0	86.6	1.5	88.1	84.6	72.8	79.4	86.4	0.2
9.5	87.3	1.6	89.4	85.5	74.1	80.4	87.4	0.2
10.0	88.9	1.5	90.4	85.8	75.3	81.4	88.4	0.2
10.5	89.8	1.5	91.3	86.1	76.5	82.3	89.3	0.2
11.0	90.9	1.7	92.6	87.4	77.6	83.5	90.5	0.2
11.5	91.7	1.6	93.3	87.8	78.8	84.5	91.5	0.2
12.0	92.2	1.7	93.9	88.5	79.4	85.1	92.1	0.2
12.5	92.2	1.7	93.9	88.4	79.1	85.0	92.0	0.2
13.0	92.3	1.6	93.9	88.3	78.9	84.8	91.8	0.2
13.5	93.6	1.7	95.3	89.5	80.0	85.9	92.9	0.2
14.0	95.1	1.5	96.6	90.7	81.6	87.5	94.5	0.2
14.5	96.0	1.7	97.7	91.8	82.5	88.7	95.7	0.2
15.0	97.6	1.9	99.5	93.5	83.8	90.2	97.2	0.2
15.5	98.5	2.0	100.5	94.2	84.4	90.9	97.9	0.2
16.0	99.3	2.0	101.3	94.6	85.0	91.6	98.6	0.2
16.5	99.6	1.9	101.5	94.8	85.1	91.7	98.7	0.2
17.0	99.6	1.7	101.3	94.9	85.3	91.7	98.7	0.2
17.5	99.4	1.5	100.9	95.1	85.3	91.8	98.8	0.2
18.0	98.9	1.1	100.0	94.9	85.1	91.5	98.5	0.2
18.5	98.7	0.9	99.6	94.6	84.9	91.2	98.2	0.2
19.0	98.4	0.8	99.2	94.2	84.4	90.7	97.7	0.2
19.5	97.7	0.6	98.3	93.5	83.8	90.0	97.0	0.2
20.0	97.1	0.6	97.7	92.8	83.0	89.3	96.3	0.4
20.5	95.8	0.6	96.4	91.4	81.9	88.1	95.1	0.4
21.0	94.9	0.0	94.9	90.4	81.0	87.0	94.0	0.1
21.5	94.4	0.0	94.4	90.4	80.5	86.6	93.6	0.1
22.0	94.2	0.0	94.2	90.2	80.3	86.3	93.3	0.1
22.5	94.0	0.0	94.0	90.3	80.0	86.0	93.0	0.1
23.0	93.7	0.5	94.2	89.7	79.7	85.6	92.6	0.8
23.5	92.6	0.0	92.6	88.7	78.8	84.5	91.5	0.1
24.0	91.6	0.0	91.6	87.6	78.2	83.7	90.7	0.1
24.5	90.8	0.0	90.8	87.5	77.7	83.0	90.0	0.1
25.0	89.6	0.0	89.6	87.0	76.3	82.0	89.0	0.1
25.5	88.4	0.0	88.4	86.4	74.8	80.9	87.9	0.1
26.0	87.4	0.0	87.4	85.4	73.5	79.8	86.8	0.1
26.5	86.7	1.2	88.1	84.9	72.8	79.2	86.2	1.5
27.0	86.4	1.5	87.9	84.1	72.3	78.6	85.6	1.5
27.5	85.9	1.6	87.5	83.9	71.7	78.1	85.1	1.5
28.0	85.5	1.3	86.8	83.4	71.1	77.6	84.6	1.5
28.5	85.7	1.2	86.9	83.6	70.9	77.7	84.7	1.5
29.0	85.5	1.3	86.8	83.3	70.8	77.8	84.8	1.5

B-166



MAXIMUM VALUES IN BANDS, PNLC = 101.1

50	63	80	100	125	160	200	250	315	400
85.2	85.4	78.1	84.8	88.9	89.8	91.0	86.5	81.2	78.1
77.0	75.1	75.1	74.4	73.2	71.4	68.6	68.6	64.7	61.1
60.7	57.8	57.0	56.2						

SPECTRUM FOR MAX PNLT

74.4	83.6	69.9	77.7	84.2	88.4	91.0	83.6	78.7	78.0
75.0	74.1	73.1	71.7	70.4	70.7	68.1	67.6	62.0	58.0
57.8	57.0	55.0	55.7						

	TIME	MAX.	D10	I-10	D20	I-20	D/15+M	D/30+M
P. T.	5.0	2.2						
PNL	16.5	99.6	15.0	107.9	29.0	108.2	99.6	99.5
PNLT	16.5	101.5	14.0	109.1	29.0	109.5	101.2	101.4
A-LEV	17.0	85.3	15.5	94.0	29.0	94.2	85.4	85.2
N-LEV	17.5	98.8	15.5	107.2	29.0	107.6	98.9	98.7

EPNL = 99.1

TSC S-64 #67: FLYOVER, 95 KT., 500 FT.

T	PNL	P.T.	PNLT	OA	A-LEV	D-LEV	N-LEV	BAND #
0.0	89.1	1.2	90.3	87.5	75.6	81.4	88.4	0.2
0.5	90.7	1.3	92.0	88.6	77.2	82.9	89.9	0.2
1.0	91.9	1.6	93.5	89.7	78.0	83.9	90.9	0.2
1.5	93.1	1.7	94.8	90.4	79.2	85.2	92.2	0.2
2.0	94.9	2.0	96.9	91.4	81.7	87.4	94.4	0.2
2.5	96.9	2.2	99.1	92.6	83.1	88.9	95.9	0.2
3.0	98.0	2.3	100.3	92.9	84.5	90.0	97.0	0.2
3.5	98.4	2.2	100.6	93.0	85.3	90.8	97.8	0.2
4.0	98.5	1.9	100.4	92.6	86.4	91.2	98.2	0.2
4.5	98.3	1.7	100.0	92.4	86.5	91.4	98.4	0.2
5.0	98.0	1.6	99.6	91.8	86.5	91.1	98.1	0.5
5.5	97.1	0.9	98.0	91.0	85.6	90.2	97.2	0.4
6.0	95.9	0.8	96.7	89.6	84.6	89.0	96.0	0.4
6.5	94.7	0.7	95.4	88.6	83.5	87.9	94.9	0.4
7.0	93.6	0.0	93.6	87.9	82.2	86.6	93.6	0.1
7.5	92.6	0.0	92.6	87.4	81.3	85.6	92.6	0.1
8.0	92.3	0.0	92.3	87.5	81.0	85.2	92.2	0.1
8.5	92.0	0.0	92.0	87.2	80.9	84.9	91.9	0.1
9.0	91.2	0.9	92.1	86.9	79.9	84.1	91.1	0.4
9.5	90.4	1.0	91.4	86.2	78.9	83.2	90.2	0.4
10.0	89.9	0.0	89.9	86.4	78.3	82.7	89.7	0.1
10.5	89.6	1.1	90.7	85.7	77.7	82.1	89.1	0.4
11.0	89.0	1.1	90.1	85.1	77.2	81.5	88.5	0.4
11.5	87.9	1.2	89.1	84.9	76.0	80.6	87.6	0.4
12.0	87.1	1.3	88.4	84.1	75.0	79.8	86.8	1.5
12.5	87.0	1.4	88.4	84.1	74.2	79.3	86.3	1.5
13.0	86.9	1.5	88.4	83.8	73.8	79.0	86.0	1.5
13.5	87.0	1.6	88.6	84.1	73.9	79.2	86.2	1.5

MAXIMUM VALUES IN BANDS, PNLC = 99.9

50	63	80	100	125	160	200	250	315	400
83.0	89.5	78.2	81.0	86.8	80.8	86.8	80.1	80.4	79.8
79.3	79.1	78.8	78.0	76.9	75.2	72.8	70.9	67.3	63.4
61.0	60.0	57.4	56.6						

SPECTRUM FOR MAX PNLT

75.1	86.6	72.0	75.1	86.8	79.7	86.1	76.7	78.9	78.6
78.3	76.5	76.1	76.5	74.6	73.5	71.7	69.7	66.2	62.3
58.7	59.7	56.9	56.4						

	TIME	MAX.	D10	I-10	D20	I-20	D/15+M	D/30+M
P.T.	3.0	2.3						
PNL	4.0	98.5	11.5	105.5	13.5	105.7	97.3	95.0
PNLT	3.5	100.6	10.0	106.9	13.5	107.2	98.8	97.1
A-LEV	4.5	86.5	11.5	93.3	13.5	93.5	85.3	83.0
N-LEV	4.5	98.4	11.5	105.2	13.5	105.3	97.2	94.9

EPNL = 96.9

TSC S-64 #74: 6 DEG. APRCH., 60 KT., 400 FT.

T	PNL	P.T.	PNLT	DA	A-LEV	D-LEV	N-LEV	BAND #
0.0	87.1	2.2	89.3	84.8	74.0	79.8	86.8	0.2
0.5	89.5	2.2	91.7	86.0	77.3	82.1	89.1	0.2
1.0	91.2	2.2	93.4	87.6	79.2	83.9	90.9	0.2
1.5	91.7	2.3	94.0	88.4	79.5	84.3	91.3	0.2
2.0	91.1	2.1	93.2	88.1	78.5	83.7	90.7	0.2
2.5	90.7	2.2	92.9	88.3	77.8	83.3	90.3	0.2
3.0	90.6	2.2	92.8	88.3	77.5	83.3	90.3	0.2
3.5	91.1	2.2	93.3	88.6	77.9	83.8	90.8	0.2
4.0	91.7	2.1	93.8	88.6	78.5	84.3	91.3	0.2
4.5	92.2	2.2	94.4	89.3	78.8	84.7	91.7	0.2
5.0	92.4	2.2	94.6	89.1	79.1	84.8	91.8	0.2
5.5	93.0	2.1	95.1	89.5	79.5	85.2	92.2	0.2
6.0	94.2	2.1	96.3	90.4	80.4	86.4	93.4	2.1
6.5	95.5	2.2	97.7	91.4	81.9	87.9	94.9	2.1
7.0	96.9	2.0	98.9	92.3	83.0	89.1	96.1	2.1
7.5	98.2	2.1	100.3	93.6	84.1	90.3	97.3	0.2
8.0	98.8	2.0	100.8	94.0	84.6	90.8	97.8	0.2
8.5	98.6	2.0	100.6	93.7	84.3	90.6	97.6	0.2
9.0	99.2	2.1	101.3	94.3	84.9	91.2	98.2	0.2
9.5	99.4	2.0	101.4	94.8	85.2	91.6	98.6	0.2
10.0	99.4	1.7	101.1	95.2	85.4	91.8	98.8	0.2
10.5	99.0	1.7	100.7	94.9	85.2	91.6	98.6	0.2
11.0	98.4	1.5	99.9	94.3	84.8	91.0	98.0	0.2
11.5	98.2	1.2	99.4	94.1	84.5	90.7	97.7	0.2
12.0	98.2	1.1	99.3	94.0	84.2	90.4	97.4	0.5
12.5	98.4	3.0	101.4	93.4	84.5	90.5	97.5	2.4
13.0	98.0	0.9	98.9	93.6	84.3	90.4	97.4	0.2
13.5	98.0	0.7	98.7	93.8	84.3	90.4	97.4	0.4
14.0	97.5	0.9	98.4	93.3	84.2	90.2	97.2	0.4
14.5	96.8	0.8	97.6	92.5	83.5	89.4	96.4	0.4
15.0	95.6	1.0	96.6	91.2	82.3	88.1	95.1	1.5
15.5	95.0	0.0	95.0	90.5	81.5	87.3	94.3	0.1
16.0	94.0	1.0	95.0	89.7	80.6	86.5	93.5	1.5
16.5	93.4	0.0	93.4	89.3	80.1	85.9	92.9	0.1
17.0	92.6	1.1	93.7	88.5	79.4	85.0	92.0	1.5
17.5	91.8	0.0	91.8	88.2	78.5	84.1	91.1	0.1
18.0	90.4	0.0	90.4	87.1	76.9	82.7	89.7	0.1
18.5	88.9	1.1	90.0	86.4	75.6	81.3	88.3	1.5
19.0	88.1	0.0	88.1	86.1	75.0	80.7	87.7	0.1
19.5	88.1	0.0	88.1	86.2	75.2	80.6	87.6	0.1
20.0	88.1	2.0	90.1	85.4	75.3	80.4	87.4	1.5
20.5	87.5	2.0	89.5	85.1	74.7	79.9	86.9	1.5

MAXIMUM VALUES IN BANDS, PNLC =101.6

50	63	80	100	125	160	200	250	315	400
83.1	87.0	76.7	85.7	89.5	90.0	90.7	85.4	82.2	80.9
77.6	75.5	75.0	74.2	73.8	71.1	69.7	67.2	64.5	62.2
64.4	60.1	58.9	76.3						

SPECTRUM FOR MAX PNLT

75.8	85.1	70.6	74.2	83.1	89.0	90.3	83.5	78.7	80.9
75.1	74.0	73.4	72.3	70.5	69.7	67.1	65.5	62.6	59.3
60.1	57.3	55.4	55.1						

P. T. TIME MAX. D10 I-10 D20 I-20 D/15+M D/30+M  
12.5 3.0  
R-160

PNL	9.5	99.4	18.5	108.7	20.5	108.8	100.3	97.7
PNLT	9.5	101.4	18.0	110.3	20.5	110.4	102.2	99.7
A-LEV	10.0	85.4	19.0	95.0	20.5	95.1	86.4	83.7
N-LEV	10.0	98.8	18.5	108.0	20.5	108.1	99.7	97.1

EPNL =100.3

TSC S-64 #78: FLYOVER, 95 KT., 500 FT.

T	PNL	P.T.	PNLT	DA	A-LEV	D-LEV	N-LEV	BAND #
0.0	90.2	1.5	91.7	89.9	75.0	82.6	89.6	0.5
0.5	92.3	1.6	93.9	90.3	78.6	84.8	91.8	0.5
1.0	95.7	1.8	97.5	91.7	83.0	88.1	95.1	0.5
1.5	97.2	1.8	99.0	92.8	84.8	89.6	96.6	0.2
2.0	97.2	1.9	99.1	92.6	85.5	89.9	96.9	0.2
2.5	98.5	2.1	100.6	93.4	86.6	91.1	98.1	0.2
3.0	99.7	2.3	102.0	94.4	87.1	92.1	99.1	0.2
3.5	100.9	2.5	103.4	95.3	87.4	92.8	99.8	0.2
4.0	100.7	2.4	103.1	94.9	87.1	92.6	99.6	0.2
4.5	99.9	2.3	102.2	93.9	86.5	91.9	98.9	0.2
5.0	99.0	1.9	100.9	93.2	86.1	91.4	98.4	0.2
5.5	98.2	1.7	99.9	92.9	85.5	90.9	97.9	0.2
6.0	96.9	1.7	98.6	91.5	84.7	89.7	96.7	0.4
6.5	95.5	1.7	97.2	90.1	83.5	88.4	95.4	0.4
7.0	94.4	1.5	95.9	88.8	82.6	87.4	94.4	0.4
7.5	93.4	0.6	94.0	87.4	81.5	86.2	93.2	0.4
8.0	92.6	0.0	92.6	86.4	80.7	85.3	92.3	0.1
8.5	91.8	0.0	91.8	85.7	79.9	84.4	91.4	0.1
9.0	90.8	0.0	90.8	85.5	79.2	83.6	90.6	0.1
9.5	89.8	0.7	90.5	85.3	77.9	82.5	89.5	0.4
10.0	89.4	1.0	90.4	85.5	77.4	82.1	89.1	0.4
10.5	89.1	1.4	90.5	85.3	77.4	81.9	88.9	0.4
11.0	88.7	1.5	90.2	85.0	77.2	81.6	88.6	0.4
11.5	87.7	1.5	89.2	84.2	75.9	80.5	87.5	0.4
12.0	87.4	1.5	88.9	83.8	75.6	80.0	87.0	0.4
12.5	86.1	1.4	87.5	83.0	74.0	78.7	85.7	1.5
13.0	84.6	1.3	85.9	82.0	72.3	77.3	84.3	1.5

MAXIMUM VALUES IN BANDS, PNLC = 102.2

50	63	80	100	125	160	200	250	315	400
83.4	88.6	75.6	82.7	87.8	81.8	91.5	86.3	84.7	82.6
82.1	80.1	77.9	77.7	75.5	74.3	72.2	69.7	66.5	62.2
60.8	64.7	57.3	56.7						

SPECTRUM FOR MAX PNLT

74.8	88.0	71.6	69.5	83.8	78.2	91.5	85.3	80.3	82.6
80.0	79.6	77.4	76.9	74.0	73.0	70.6	68.6	65.1	60.6
57.8	63.7	56.7	56.5						

	TIME	MAX.	D10	I-10	D20	I-20	D/15+M	D/30+M
P.T.	3.5	2.5						
PNL	3.5	100.9	9.0	106.9	13.0	107.2	98.7	97.3
PNLT	3.5	103.4	8.0	108.8	13.0	109.1	100.7	99.8
A-LEV	3.5	87.4	10.0	94.3	13.0	94.5	85.6	83.8
N-LEV	3.5	99.8	9.5	106.4	13.0	106.6	97.8	96.2

EPNL = 98.8

APPENDIX C

Columbia Psychoacoustics Laboratory  
Data Set



## COL. UNIV. PSYCH. LAB.: HELICOPTER #1

TIME	BRITISH			FRENCH		
	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE COEF (DB)	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE CORR (DB)
0.5	-17.7	.00	-15.9	-8.4	3.89	1.0
1.0	-17.0	.00	-17.2	-7.9	3.50	0.6
1.5	-13.0	.00	-16.7	-7.2	2.25	-0.8
2.0	-12.2	.00	-23.3	-6.4	2.29	-0.8
2.5	-8.7	.07	-11.1	-5.8	2.49	-0.6
3.0	-4.7	.08	-11.0	-4.5	2.90	0.0
3.5	0.0	.00	-21.1	-0.6	3.08	0.1
4.0	-1.9	.08	-10.7	0.0	2.72	-0.3
4.5	-3.8	.00	-18.7	-4.8	3.50	0.6
5.0	-8.1	.00	-15.4	-10.0	3.41	0.5
5.5	-12.4	.00	-17.4	-15.4	3.38	0.4

TIME	BRITISH			FRENCH		
	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE COEF (DB)	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE CORR (DB)
0.5	-19.4	.07	-11.4	-8.4	2.49	-0.6
1.0	-18.2	.00	-14.9	-8.4	2.57	-0.5
1.5	-17.7	.00	-18.1	-7.8	2.57	-0.5
2.0	-17.8	.00	-15.6	-7.8	2.67	-0.4
2.5	-16.5	.00	-23.1	-7.8	2.57	-0.5
3.0	-14.8	.00	-20.5	-7.5	2.36	-0.7
3.5	-13.8	.00	-19.2	-7.6	2.13	-1.0
4.0	-13.1	.00	-17.8	-6.8	2.13	-1.0
4.5	-9.9	.00	-12.4	-4.8	2.10	-1.0
5.0	-10.3	.00	-15.9	-4.9	2.25	-0.9
5.5	-11.0	.00	-15.9	-4.8	2.14	-1.0
6.0	-9.9	.00	-17.0	-3.0	2.65	-0.4
6.5	-7.2	.12	-8.9	-1.5	3.10	0.1
7.0	-7.3	.14	-8.4	-1.3	2.49	-0.6
7.5	-3.8	.00	-14.7	-1.8	2.56	-0.5
8.0	0.0	.00	-18.7	0.0	2.80	-0.2
8.5	-1.4	.00	-14.6	-1.4	2.93	0.0
9.0	-4.5	.00	-25.5	-5.4	2.78	-0.2
9.5	-7.2	.00	-13.4	-9.5	3.24	0.3
10.0	-11.6	.00	-13.9	-12.7	3.25	0.3

TIME	BRITISH			FRENCH		
	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE COEF (DB)	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE CORR (DB)
0.5	-14.1	.08	-10.9	-14.2	2.21	-0.9
1.0	-13.4	.00	-20.8	-11.9	1.98	-1.2
1.5	-10.2	.00	-20.0	-9.9	2.38	-0.7
2.0	-8.3	.00	-18.5	-8.4	3.05	0.1
2.5	-7.2	.00	-17.2	-7.1	3.14	0.2
3.0	-6.9	.00	-13.7	-5.9	2.76	-0.3
3.5	-4.4	.00	-15.1	-3.8	2.34	-0.8
4.0	-2.6	.00	-16.8	-2.3	2.59	-0.5
4.5	-0.2	.00	-21.5	-0.7	2.73	-0.3
5.0	-1.8	.00	-18.0	-0.6	2.83	-0.2
5.5	-1.2	.00	-19.2	0.0	3.47	0.5
6.0	0.0	.00	-14.0	0.0	4.28	1.5
6.5	-0.8	.00	-16.3	0.0	3.35	0.4
7.0	0.0	.09	-10.2	-1.2	2.50	-0.6
7.5	-1.7	.00	-15.4	-3.5	3.04	0.1
8.0	0.0	.00	-19.3	-4.7	3.20	0.2
8.5	-0.4	.00	-13.1	-3.4	2.72	-0.3
9.0	-3.0	.06	-12.0	-6.4	3.59	0.7
9.5	-7.3	.00	-13.7	-10.8	2.82	-0.2
10.0	-11.8	.00	-13.3	-14.2	3.28	0.3
10.5	-17.1	.24	-6.1	-20.4	4.30	1.5

COL. UNIV. PSYCH. LAB. HELICOPTER #1

TIME	PEAK SPL	TIME	PEAK SPL	TIME	PEAK SPL	TIME	PEAK SPL
0.5	75.7						
1.0	78.1						
1.5	80.6						
2.0	81.6						
2.5	86.7						
3.0	91.5						
3.5	92.4						
4.0	89.9						
4.5	88.2						
5.0	83.9						
5.5	79.7						

COL. UNIV. PSYCH. LAB. HELICOPTER #2

TIME	PEAK SPL	TIME	PEAK SPL	TIME	PEAK SPL	TIME	PEAK SPL
0.5	71.7						
1.0	74.3						
1.5	73.5						
2.0	73.7						
2.5	73.4						
3.0	77.8						
3.5	77.6						
4.0	78.0						
4.5	81.7						
5.0	80.9						
5.5	79.9						
6.0	81.7						
6.5	88.3						
7.0	86.8						
7.5	89.7						
8.0	92.3						
8.5	90.0						
9.0	87.7						
9.5	83.6						
10.0	80.3						

COL. UNIV. PSYCH. LAB. HELICOPTER #3

TIME	PEAK SPL	TIME	PEAK SPL	TIME	PEAK SPL	TIME	PEAK SPL
0.5	81.0						
1.0	80.8						
1.5	81.4						
2.0	82.1						
2.5	81.2						
3.0	83.3						
3.5	84.3						
4.0	87.1						
4.5	89.5						
5.0	88.6						
5.5	88.9						
6.0	90.0						
6.5	89.5						
7.0	91.4						
7.5	89.6						
8.0	90.0						
8.5	89.3						
9.0	87.6						
9.5	83.3						
10.0	78.1						
10.5	74.4						



## COL. UNIV. PSYCH. LAB. HELICOPTER 1

T	PNL	P.T.	PNLT	OA	A-LEV	D-LEV	N-LEV	BAND #
0.0	75.0	1.5	76.5	75.1	58.6	68.2	75.2	0.4
0.5	76.3	0.8	77.1	75.8	60.3	69.6	76.6	0.4
1.0	76.9	1.0	77.9	76.5	61.7	70.7	77.7	1.4
1.5	79.1	1.1	80.2	77.6	64.6	72.9	79.9	0.5
2.0	80.7	1.2	82.1	78.0	66.2	74.3	81.3	0.3
2.5	84.3	0.9	83.2	78.0	69.5	77.6	84.6	0.3
3.0	88.4	1.0	89.4	79.6	73.5	81.7	88.7	0.3
3.5	92.5	0.6	93.1	83.2	77.5	85.4	92.4	0.7
4.0	92.6	0.6	93.2	84.3	77.5	85.3	92.3	0.7
4.5	91.5	0.7	92.2	83.2	76.8	84.1	91.1	1.0
5.0	89.5	0.6	90.1	81.3	75.1	82.1	89.1	0.5
5.5	87.3	0.6	87.9	79.2	73.1	80.0	87.0	0.5

MAXIMUM VALUES IN BANDS, PNLC = 93.1

50	63	80	100	125	160	200	250	315	400
77.0	72.5	75.0	72.9	76.9	75.1	74.3	64.9	68.4	70.3
67.1	65.4	67.7	64.7	60.8	60.7	64.5	65.6	65.6	65.9
65.8	69.0	67.0	65.4						

SPECTRUM FOR MAX PNLT

77.0	72.5	70.3	72.9	76.9	75.1	74.3	63.6	67.2	67.1
67.1	65.1	67.7	64.2	60.5	60.6	64.5	65.3	65.4	65.3
64.9	68.5	67.0	65.3						

	TIME	MAX.	D10	I-10	D20	I-20	D/15+M	D/30+M
P.T.	0.0	1.5						
PNL	4.0	92.6	3.5	95.4	5.5	95.6	86.3	85.2
PNLT	4.0	93.2	3.5	96.1	5.5	96.3	86.9	85.8
A-LEV	3.5	77.5	3.5	80.6	5.5	80.7	71.2	70.1
N-LEV	3.5	92.4	3.5	95.3	5.5	95.4	86.1	85.0

EPNL = 86.1

## COL. UNIV. PSYCH. LAB : HELICOPTER 2

T	PNL	P.T.	PNLT	DA	A-LEV	D-LEV	N-LEV	BAND #
0.0	72.9	1.4	74.3	74.9	56.3	67.3	74.3	0.2
0.5	74.4	1.7	76.1	76.8	57.6	68.9	75.9	0.2
1.0	76.2	1.7	77.9	77.9	59.1	70.2	77.2	0.2
1.5	77.0	1.7	78.7	78.6	59.9	70.9	77.9	0.2
2.0	77.2	1.5	78.7	78.8	60.2	71.1	78.1	0.2
2.5	77.9	1.5	79.4	79.2	61.1	71.7	78.7	0.7
3.0	78.9	1.0	79.9	79.6	62.7	72.5	79.5	0.7
3.5	79.3	0.5	79.8	79.8	64.0	73.0	80.0	0.2
4.0	80.1	0.0	80.1	80.4	65.0	73.8	80.8	0.1
4.5	82.5	0.6	83.1	82.2	67.4	75.9	82.9	0.7
5.0	83.0	1.3	84.3	82.9	68.0	76.5	83.5	0.3
5.5	83.4	1.6	85.0	83.2	68.1	76.8	83.8	0.3
6.0	84.0	1.4	85.4	83.9	68.6	77.5	84.5	1.4
6.5	86.5	1.2	87.7	84.9	70.4	78.6	85.6	1.4
7.0	87.1	1.2	88.3	84.7	71.1	78.9	85.9	0.2
7.5	89.2	1.2	90.4	84.5	74.1	81.7	88.7	0.2
8.0	92.8	0.7	93.5	86.3	77.6	85.4	92.4	0.2
8.5	92.9	0.8	93.7	87.0	77.8	85.6	92.6	0.5
9.0	91.7	0.8	92.5	85.7	76.8	84.3	91.3	0.5
9.5	89.8	0.8	90.6	83.8	75.2	82.5	89.5	0.5
10.0	87.6	0.8	88.4	81.8	73.2	80.4	87.4	0.5

MAXIMUM VALUES IN BANDS, PNLC = 93.6

	50	63	80	100	125	160	200	250	315	400
75.2	77.7	79.6	81.1	82.1	79.9	77.1	69.7	69.1	69.2	
68.4	65.7	66.9	64.3	60.6	59.5	63.9	64.4	65.3	64.4	
65.0	67.9	66.6	64.8							

SPECTRUM FOR MAX PNLT

75.1	76.0	72.5	76.1	82.1	79.9	76.4	68.8	69.1	68.8
68.4	65.3	66.7	63.3	60.1	59.5	63.9	64.4	64.6	63.8
64.0	67.9	66.6	64.8						

	TIME	MAX.	D10	I-10	D20	I-20	D/15+M	D/30+M
P.T.	0.5	1.7						
PNL	8.5	92.9	5.5	96.5	10.0	96.7	88.5	88.1
PNLT	8.5	93.7	5.5	97.4	10.0	97.7	89.3	88.9
A-LEV	8.5	77.8	5.5	81.4	9.5	81.6	73.4	72.8
N-LEV	8.5	92.6	6.0	96.2	10.0	96.5	88.6	87.8

EPNL = 87.4

## COL. UNIV. PSYCH. LAB.: HELICOPTER 3

T	PNL	P.T.	PNLT	OA	A-LEV	D-LEV	N-LEV	BAND #
0.0	69.7	1.4	71.1	71.6	56.6	65.1	72.1	1.3
0.5	76.2	1.9	78.1	76.0	61.5	70.0	77.0	1.7
1.0	78.9	1.4	80.3	79.0	63.5	72.5	79.5	1.7
1.5	81.4	1.6	83.0	81.1	66.3	74.8	81.8	1.7
2.0	84.0	1.4	85.4	83.0	68.3	76.8	83.8	1.7
2.5	85.5	1.1	86.6	84.4	69.9	78.3	85.3	0.3
3.0	87.9	6.2	94.1	85.8	72.1	81.2	88.2	2.1
3.5	88.3	0.8	89.1	87.2	72.3	81.0	88.0	0.5
4.0	90.7	1.1	91.8	88.9	74.1	83.0	90.0	0.5
4.5	92.5	1.2	93.7	90.3	76.1	84.6	91.6	0.3
5.0	92.6	1.2	93.8	90.8	76.2	84.8	91.8	0.3
5.5	92.2	1.2	93.4	91.0	76.6	84.8	91.8	1.3
6.0	92.8	1.3	94.1	91.1	77.4	85.0	92.0	1.3
6.5	92.4	1.2	93.6	90.6	77.3	84.6	91.6	1.3
7.0	91.9	1.9	93.8	89.8	77.6	84.2	91.2	1.3
7.5	91.5	1.2	92.7	89.4	77.2	83.8	90.8	1.3
8.0	92.4	1.0	93.4	87.9	77.7	84.7	91.7	0.2
8.5	93.3	0.8	94.1	88.7	77.9	85.3	92.3	0.5
9.0	92.2	0.8	93.0	87.8	76.8	84.3	91.3	0.5
9.5	90.2	0.8	91.0	85.8	75.1	82.4	89.4	0.5
10.0	88.1	0.8	88.9	83.9	73.0	80.3	87.3	0.5
10.5	85.6	0.8	86.4	81.7	70.8	78.0	85.0	0.5

MAXIMUM VALUES IN BANDS, PNLC = 96.0

50	63	80	100	125	160	200	250	315	400
80.1	84.9	85.1	86.4	87.0	80.8	79.2	71.3	71.8	73.0
69.7	70.8	72.6	66.5	60.8	60.2	62.4	62.4	61.9	61.3
66.1	64.8	64.2	62.6						

SPECTRUM FOR MAX PNLT

72.6	69.8	80.0	79.5	80.5	73.5	70.6	63.2	64.2	62.2
59.3	59.9	60.6	58.8	51.8	49.3	51.9	51.0	49.9	49.1
66.1	45.7	43.8	44.7						

	TIME	MAX.	D10	I-10	D20	I-20	D/15+M	D/30+M
P.T.	3.0	6.2						
PNL	8.5	93.3	9.0	100.5	10.5	100.5	91.1	88.7
PNLT	3.0	94.1	9.0	101.9	10.5	101.9	91.9	89.5
A-LEV	8.5	77.9	9.0	85.1	10.5	85.1	75.7	73.3
N-LEV	8.5	92.3	9.0	99.8	10.5	99.8	90.1	87.7

EPNL = 91.9

APPENDIX D

Boeing Vertol Data Set

# COMPARISON OF BOEING VERTOL AND BBN ANALYSES

Event	EPNL		PNLT		Max rms A level dB	Peak A level dB	Peak- rms dB
	Vertol dB	BBN dB	Δ dB	Vertol dB	BBN dB	Δ dB	
CH47A	103.5	98.2	5.3	107.5	102.2	5.3	13.9
CH47A with high aft pylon	95.0	90.7	4.3	99.5	94.5	5.0	10.8
347	89.5	85.1	4.4	95.0	89.1	5.9	10.5

## CH-47A AT 110 KNOTS

TIME	BRITISH			FRENCH		
	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE COEF (DB)	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE CORR (DB)
0.5	-17.1	7.17	8.6	-13.5	3.41	0.5
1.0	-15.7	6.40	8.1	-12.2	3.53	0.6
1.5	-10.0	24.50	13.9	-11.2	11.22	9.4
2.0	-11.7	19.60	12.9	-12.1	8.95	6.8
2.5	-11.4	22.71	13.6	-11.0	9.35	7.3
3.0	-11.2	14.54	11.6	-10.9	9.55	7.5
3.5	-7.3	38.60	15.9	-9.4	13.42	11.9
4.0	-3.5	30.19	14.8	-7.1	12.87	11.3
4.5	-5.3	22.87	13.6	-8.1	9.42	7.3
5.0	-4.1	13.62	11.3	-5.2	7.38	5.0
5.5	-5.0	6.86	8.4	-4.7	5.64	3.0
6.0	-1.3	14.95	11.7	-3.6	10.43	8.5
6.5	-0.5	11.99	10.8	-2.4	9.15	7.0
7.0	-1.0	16.02	12.0	-2.3	9.61	7.6
7.5	-1.0	9.96	10.0	-1.7	8.01	5.7
8.0	0.0	12.51	11.0	0.0	8.39	6.2
8.5	-1.1	9.83	9.9	-0.3	6.24	3.7
9.0	-3.3	2.12	3.3	-1.5	4.83	2.1
9.5	-3.8	1.83	2.6	-2.3	4.05	1.2
10.0	-7.0	1.20	0.8	-4.1	3.18	0.2
10.5	-7.5	1.57	2.0	-5.5	3.65	0.8
11.0	-9.0	1.47	1.7	-7.2	3.68	0.8
11.5	-10.3	4.04	6.1	-7.8	3.88	1.0
12.0	-33.2	.00	-23.7	-26.0	2.96	0.0
12.5	-33.1	.00	-23.3	-28.7	2.92	0.0



## 1 HAP AT 120 KNOTS

TIME	BRITISH			FRENCH		
	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE COEF (DB)	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE CORR (DB)
0.5	-12.0	.34	-4.6	-13.2	2.85	-0.2
1.0	-11.9	.39	-4.0	-12.2	2.72	-0.3
1.5	-10.6	.48	-3.1	-11.3	3.15	0.2
2.0	-9.6	.44	-3.6	-10.9	3.22	0.3
2.5	-9.4	.46	-3.3	-10.5	3.02	0.0
3.0	-8.5	.68	-1.6	-9.8	2.92	0.0
3.5	-8.1	.45	-3.4	-9.1	2.75	-0.3
4.0	-8.3	.38	-4.2	-8.6	2.64	-0.4
4.5	-8.1	.30	-5.1	-8.2	2.34	-0.8
5.0	-6.1	.48	-3.2	-6.5	2.29	-0.8
5.5	-5.1	.22	-6.5	-5.7	2.11	-1.0
6.0	-4.8	.66	-1.8	-4.6	2.15	-1.0
6.5	-3.5	1.09	0.4	-4.0	2.51	-0.5
7.0	-2.0	.31	-5.0	-2.8	2.84	-0.2
7.5	-2.1	.58	-2.3	-1.9	3.87	1.0
8.0	-1.6	1.68	2.3	-2.0	4.62	1.9
8.5	-2.8	1.27	1.0	-3.2	2.71	-0.3
9.0	-0.7	.12	-9.0	0.0	2.29	-0.8
9.5	-0.9	.06	-11.8	-4.1	2.33	-0.8
10.0	0.0	.00	-13.5	-5.2	2.60	-0.4
10.5	-1.2	.00	-15.1	-4.6	2.39	-0.7
11.0	-1.3	.00	-16.5	-9.6	3.42	0.5
11.5	-1.4	.00	-16.6	-7.9	2.64	-0.4
12.0	-3.5	.21	-6.7	-11.8	2.77	-0.3
12.5	-6.9	.00	-14.5	-14.0	2.37	-0.7
13.0	-9.3	.00	-16.0	-15.2	2.65	-0.4
13.5	-16.7	4.24	6.3	-21.6	6.50	4.0

347 AT 120 KNOTS

TIME	BRITISH			FRENCH		
	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE COEF (DB)	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE CORR (DB)
0.5	-12.7	.00	-19.4	-7.6	2.46	-0.6
1.0	-9.7	.00	-16.2	-9.0	2.67	-0.4
1.5	-7.6	.00	-18.2	-8.1	2.77	-0.3
2.0	-6.0	.00	-15.7	-6.9	2.90	0.0
2.5	-3.5	.00	-17.8	-3.9	3.10	0.1
3.0	-1.9	.00	-14.6	-1.8	2.73	-0.3
3.5	-0.8	.00	-23.8	-0.3	2.47	-0.6
4.0	0.0	.00	-22.5	-0.2	2.95	0.0
4.5	0.0	.00	-20.0	0.0	2.81	-0.2
5.0	-0.9	.00	-19.2	-3.6	3.08	0.1
5.5	-3.3	.00	-14.2	-6.3	3.49	0.6
6.0	-5.6	.07	-11.0	-7.6	2.86	-0.2
6.5	-8.4	.00	-18.3	-8.8	3.10	0.1
7.0	-9.9	.00	-18.0	-10.4	2.91	0.0
7.5	-12.5	.00	-15.7	-13.1	3.11	0.1
8.0	-13.5	.00	-16.5	-14.0	2.73	-0.3

CH-47A AT 110 KT.

TIME	PEAK SPL	TIME	PEAK SPL	TIME	PEAK SPL	TIME	PEAK SPL
----	-----	----	-----	----	-----	----	-----
0.5	91.1						
1.0	91.6						
1.5	100.4						
2.0	97.9						
2.5	99.5						
3.0	97.7						
3.5	101.7						
4.0	105.8						
4.5	103.2						
5.0	101.8						
5.5	100.6						
6.0	103.6						
6.5	103.7						
7.0	103.2						
7.5	103.3						
8.0	104.0						
8.5	104.0						
9.0	100.3						
9.5	98.2						
10.0	97.1						
10.5	95.6						
11.0	96.6						
11.5	96.0						
12.0	70.3						
12.5	68.4						
13.0	68.7						

1 HAP AT 120 KT.

TIME	PEAK SPL	TIME	PEAK SPL	TIME	PEAK SPL	TIME	PEAK SPL
0.5	75.7						
1.0	75.3						
1.5	76.3						
2.0	77.0						
2.5	78.6						
3.0	79.6						
3.5	79.3						
4.0	78.8						
4.5	78.2						
5.0	81.3						
5.5	82.5						
6.0	84.0						
6.5	83.9						
7.0	84.7						
7.5	84.9						
8.0	85.1						
8.5	85.4						
9.0	87.2						
9.5	86.4						
10.0	87.0						
10.5	85.7						
11.0	85.6						
11.5	85.0						
12.0	85.2						
12.5	82.2						
13.0	78.6						
13.5	75.7						

347 AT 120 KT.

TIME	PEAK SPL
0.5	76.2
1.0	79.6
1.5	80.7
2.0	83.1
2.5	83.5
3.0	85.2
3.5	86.2
4.0	85.9
4.5	86.6
5.0	87.3
5.5	84.2
6.0	82.7
6.5	78.2
7.0	76.6
7.5	75.7
8.0	73.8

TIME	PEAK SPL
------	-------------

TIME	PEAK SPL
------	-------------

TIME	PEAK SPL
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## CH-47A

T	PNL	P.T.	PNLT	OA	A-LEV	D-LEV	N-LEV	BAND #
0.0	85.3	0.0	85.3	84.8	72.0	79.0	86.0	0.1
0.5	86.0	0.0	86.0	85.1	72.4	79.3	86.3	0.1
1.0	86.9	0.5	87.4	85.8	73.1	80.0	87.0	0.4
1.5	88.2	0.6	88.8	86.8	76.1	81.6	88.6	0.4
2.0	88.8	0.8	89.6	86.8	76.9	82.2	89.2	0.4
2.5	89.5	0.8	90.3	87.5	77.7	82.8	89.8	0.4
3.0	90.0	0.0	90.0	88.1	78.1	83.3	90.3	0.1
3.5	91.5	0.0	91.5	89.0	79.9	84.7	91.7	0.1
4.0	93.8	0.0	93.8	90.5	82.5	86.8	93.8	0.1
4.5	94.4	0.0	94.4	90.7	83.1	87.4	94.4	0.1
5.0	96.0	0.0	96.0	92.4	84.0	88.8	95.8	0.1
5.5	96.8	0.5	97.3	93.6	84.4	89.6	96.6	0.4
6.0	98.3	0.7	99.0	94.1	86.2	91.3	98.3	1.0
6.5	98.9	1.2	100.1	94.9	87.3	92.3	99.3	1.3
7.0	99.6	0.8	100.4	95.9	88.1	93.3	100.3	0.4
7.5	100.1	0.7	100.8	96.6	88.4	93.8	100.8	0.8
8.0	101.3	0.9	102.2	98.0	89.1	94.7	101.7	0.8
8.5	101.2	0.0	101.2	98.1	88.7	94.5	101.5	0.1
9.0	100.8	0.0	100.8	97.9	88.0	93.9	100.9	0.1
9.5	100.1	0.0	100.1	97.3	87.2	93.3	100.3	0.1
10.0	98.8	0.0	98.8	96.1	85.8	92.0	99.0	0.1
10.5	97.7	0.0	97.7	94.8	84.6	90.8	97.8	0.1
11.0	96.3	0.0	96.3	93.4	83.3	89.3	96.3	0.1
11.5	95.1	0.5	95.6	92.1	82.2	88.1	95.1	0.3
12.0	92.8	0.6	93.4	89.9	79.9	85.8	92.8	0.3
12.5	90.5	0.6	91.1	87.6	77.7	83.6	90.6	0.3

MAXIMUM VALUES IN BANDS, PNLC = 102.0

50	63	80	100	125	160	200	250	315	400
90.6	88.9	87.9	89.2	84.8	84.4	90.0	91.6	89.7	87.9
81.8	80.2	76.7	72.6	69.2	65.6	61.9	57.9	53.3	50.4
47.9	46.8	46.3	46.4						

SPECTRUM FOR MAX PNLT

85.4	87.6	87.9	89.2	83.2	78.8	87.2	91.6	89.7	86.6
80.5	80.2	75.5	72.6	69.2	65.6	61.7	57.6	53.3	50.4
47.9	46.8	46.3	46.3						

	TIME	MAX.	D10	I-10	D20	I-20	D/15+M	D/30+M
P.T.	6.5	1.2						
PNL	8.0	101.3	9.5	107.9	12.5	108.0	99.3	97.5
PNLT	8.0	102.2	9.0	108.2	12.5	108.4	100.0	98.4
A-LEV	8.0	89.1	9.5	95.6	12.5	95.7	87.1	85.3
N-LEV	8.0	101.7	9.0	108.1	12.5	108.2	99.5	97.9

EPNL = 98.2



## 1 HAP

T	PNL	P.T.	PNLT	OA	A-LEV	D-LEV	N-LEV	BAND #
0.0	81.0	0.9	81.9	83.1	64.5	75.1	82.1	0.9
0.5	81.5	0.7	82.2	83.9	64.9	75.7	82.7	0.9
1.0	81.5	0.0	81.5	84.5	65.1	76.0	83.0	0.1
1.5	82.2	0.0	82.2	85.5	65.9	76.9	83.9	0.1
2.0	82.8	0.0	82.8	86.1	66.8	77.6	84.6	0.1
2.5	83.6	0.0	83.6	86.5	67.3	78.1	85.1	0.1
3.0	84.4	0.0	84.4	87.3	68.1	78.9	85.9	0.1
3.5	84.7	0.0	84.7	88.0	68.5	79.5	86.5	0.1
4.0	84.9	0.0	84.9	88.6	68.6	79.9	86.9	0.1
4.5	85.1	0.0	85.1	88.8	68.8	80.2	87.2	0.1
5.0	86.4	0.6	87.0	90.2	70.0	81.5	88.5	0.3
5.5	88.3	1.2	89.5	91.5	71.3	82.8	89.8	1.1
6.0	89.5	1.0	90.5	92.7	72.1	83.8	90.8	0.4
6.5	90.4	1.0	91.4	93.6	73.0	84.6	91.6	0.4
7.0	90.8	0.6	91.4	94.4	73.9	85.4	92.4	0.4
7.5	91.0	0.0	91.0	95.5	74.4	86.3	93.3	0.1
8.0	92.2	0.0	92.2	95.9	75.1	87.1	94.1	0.1
8.5	92.1	1.2	93.3	94.9	74.8	86.2	93.2	1.1
9.0	92.9	1.6	94.5	96.3	75.9	87.1	94.1	1.1
9.5	92.2	1.5	93.7	94.8	76.1	85.9	92.9	1.1
10.0	91.7	0.0	91.7	93.5	76.4	85.2	92.2	0.1
10.5	90.6	0.6	91.2	92.0	76.3	84.0	91.0	1.0
11.0	90.1	0.7	90.8	90.2	76.2	83.0	90.0	1.0
11.5	89.5	0.7	90.2	88.5	76.2	82.1	89.1	1.0
12.0	88.2	0.7	88.9	86.6	75.1	80.7	87.7	1.0
12.5	86.5	0.6	87.1	84.7	73.5	79.1	86.1	1.0
13.0	84.8	0.5	85.3	83.3	71.7	77.5	84.5	1.0
13.5	82.6	0.5	83.1	81.1	69.5	75.3	82.3	1.0

MAXIMUM VALUES IN BANDS, PNLC = 95.1

50	63	80	100	125	160	200	250	315	400
91.7	90.7	89.6	88.8	84.9	78.9	74.4	72.5	74.2	75.0
72.8	67.5	67.6	66.6	63.9	61.5	59.2	55.7	50.4	47.8
45.7	45.1	45.3	45.9						

SPECTRUM FOR MAX PNLT

91.7	90.7	88.6	88.3	81.3	76.7	72.7	64.6	64.3	67.1
71.3	65.8	60.7	58.9	57.1	53.9	53.3	49.0	45.4	44.3
43.6	44.3	45.2	45.9						

	TIME	MAX.	D10	I-10	D20	I-20	D/15+M	D/30+M
P.T.	9.0	1.6						
PNL	9.0	92.9	11.5	100.0	13.5	100.1	91.7	89.4
PNLT	9.0	94.5	10.5	100.7	13.5	100.9	93.0	91.0
A-LEV	10.0	76.4	12.0	84.3	13.5	84.4	75.4	72.9
N-LEV	8.0	94.1	12.0	101.2	13.5	101.2	93.1	90.6

EPNL = 90.7

T	PNL	P.T.	PNLT	OA	A-LEV	D-LEV	N-LEV	BAND #
0.0	76.2	1.6	77.8	75.9	62.6	69.4	76.4	1.6
0.5	76.7	1.2	77.9	75.2	63.7	69.9	76.9	1.1
1.0	78.7	1.4	80.1	74.6	65.9	71.4	78.4	1.6
1.5	80.8	1.4	82.2	75.8	68.0	73.5	80.5	1.1
2.0	82.8	1.8	84.6	76.5	69.8	75.3	82.3	1.6
2.5	84.9	1.8	86.7	78.5	72.1	77.5	84.5	1.6
3.0	87.0	1.7	88.7	81.4	74.2	79.5	86.5	1.6
3.5	87.9	0.5	88.4	83.3	75.4	80.7	87.7	0.8
4.0	88.2	0.6	88.8	83.7	76.2	81.4	88.4	1.0
4.5	88.6	0.5	89.1	83.4	76.8	81.7	88.7	1.0
5.0	88.1	0.6	88.7	82.6	76.6	81.2	88.2	0.4
5.5	86.8	0.9	87.7	81.4	75.4	80.0	87.0	0.4
6.0	85.6	0.8	86.4	80.2	74.0	78.7	85.7	0.4
6.5	84.2	0.7	84.9	78.8	72.2	77.0	84.0	0.4
7.0	82.7	0.6	83.3	77.3	70.5	75.4	82.4	0.4
7.5	80.9	0.5	81.4	75.6	68.7	73.6	80.6	0.4
8.0	79.1	0.0	79.1	74.0	67.2	71.9	78.9	0.1

MAXIMUM VALUES IN BANDS, PNLC = 89.3

50	63	80	100	125	160	200	250	315	400
79.3	74.7	70.4	71.6	68.2	73.0	74.4	73.4	70.2	70.9
68.8	67.8	68.2	68.0	68.5	67.2	63.0	60.5	57.4	54.1
49.1	45.4	45.1	45.8						

SPECTRUM FOR MAX PNLT

77.4	72.7	70.4	69.9	67.8	72.6	73.5	72.6	67.0	70.9
68.6	67.8	68.2	67.8	68.5	66.1	63.0	60.5	57.4	54.1
49.1	45.4	45.0	45.7						

	TIME	MAX.	D10	I-10	D20	I-20	D/15+M	D/30+M
P.T.	2.0	1.8						
PNL	4.5	88.6	7.5	94.2	8.0	94.3	85.6	82.9
PNLT	4.5	89.1	7.5	95.1	8.0	95.2	86.1	83.4
A-LEV	4.5	76.8	7.0	82.1	8.0	82.2	73.5	71.1
N-LEV	4.5	88.7	7.0	94.1	8.0	94.2	85.4	83.0

EPNL = 85.1

APPENDIX E

BBN Simulation of  
Fuller/NPL Data Set

# COMPARISON OF NPL AND BBN ANALYSES - FULLER'S NPL DATA

Signal	French NPL	Linear BBN mean	C.I. std.dev.	British A-weighted I		10 log C.I./CIn		10 log I	
				NPL	BBN mean	std.dev.	NPL	BBN	BBN
							dB	dB	dB
Shaped Noise Only	3.0	2.99	0.09	0.5	0	0	0	-3.0	-∞
Noise + 200 Hz/10dB	3.6	3.70	0.24	0.6	0	0	0.8	0.9	"
Noise + 400 Hz/10dB	4.0	3.52	0.25	1.1	0	0	1.2	0.7	"
Noise + 800 Hz/10dB	3.2	3.26	0.23	0.9	0	0	0.3	0.4	"
Noise + 200 Hz/20dB	11.5	13.5	1.11	3.4	0.04	0.04	5.8	6.5	-8.9
Noise + 400 Hz/20dB	20.5	20.3	1.96	11.1	0.35	0.35	8.3	8.3	0.4
Noise + 800 Hz/20dB	13.3	18.8	2.17	11.8	0.53	0.53	6.5	8.0	2.3
Noise + 200 Hz/30dB		23.6	2.79		1.23	1.23		13.7	11.5
Noise + 400 Hz/30dB		51.3	3.23		5.48	5.48		17.1	15.5
Noise + 800 Hz/30dB		87.5	6.15		8.08	8.08		19.4	16.5

Note: NPL :  $\tau = 1$  ms

BBN :  $\tau = 10$  ms

White noise

3.09 0.13 0 0

COMPARISON OF NPL AND BBN ANALYSES - FULLER'S NPL DATA (Cont'd)

Signal	PNLTM dB	Subjective* $\Delta$ PNLTM dB	A level rms dB	A level peak dB	A level peak std. dev. dB	Peak- rms dB
Shaped Noise Only	86.8	0	75.5	86.2	0.65	10.7
Noise + 200 Hz/10dB	87.7	2.2	75.7	86.2	0.75	10.5
Noise + 400 Hz/10dB	87.3	1.0	75.6	86.6	0.54	11.0
Noise + 800 Hz/10dB	86.7	2.3	75.5	87.5	1.17	12.0
Noise + 200 Hz/20dB	88.8	2.8	75.6	88.1	0.70	12.5
Noise + 400 Hz/20dB	88.4	3.4	76.0	91.8	0.55	15.8
Noise + 800 Hz/20dB	87.0	5.3	76.2	94.8	0.51	18.6
Noise + 200 Hz/30dB	93.1		77.7	92.2	0.36	14.5
Noise + 400 Hz/30dB	91.8		79.3	98.5	0.32	19.2
Noise + 800 Hz/30dB	90.1		79.5	103.1	0.21	23.6

F  
1  
N

\*The reduction in level required in the psychoacoustical experiment to have the signal judged equal in annoyance to the noise signal used as reference.

SHAPED NOISE: RUN #1, 3-25-77

TIME	BRITISH			FRENCH		
	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE COEF (DB)	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE CORR (DB)
0.5	-0.4	.00	-24.1	-0.5	2.94	0.0
1.0	-0.3	.00	-22.5	-0.4	2.90	0.0
1.5	-0.4	.00	-24.4	-0.5	3.12	0.1
2.0	-0.2	.00	-21.5	-0.2	3.03	0.0
2.5	-0.4	.00	-20.3	-0.4	3.05	0.1
3.0	-0.4	.00	-17.0	-0.4	3.16	0.2
3.5	-0.3	.00	-21.8	0.0	2.82	-0.2
4.0	-0.4	.00	-23.2	-0.3	2.95	0.0
4.5	-0.5	.00	-24.9	-0.4	2.94	0.0
5.0	-0.4	.00	-23.3	-0.5	2.92	0.0
5.5	-0.5	.00	-22.6	-0.4	2.95	0.0
6.0	0.0	.00	-21.8	-0.2	2.85	-0.2
6.5	-0.2	.00	-20.7	0.0	3.04	0.1
7.0	-0.2	.00	-24.5	-0.3	2.97	0.0
7.5	0.0	.00	-23.9	-0.2	3.03	0.0
8.0	0.0	.00	-17.9	-0.4	3.09	0.1
8.5	-0.3	.00	-21.8	-0.5	3.07	0.1
9.0	-0.3	.00	-20.6	-0.4	3.00	0.0
9.5	0.0	.00	-22.0	-0.2	3.03	0.0
10.0	-0.4	.00	-23.5	-0.4	3.06	0.1
10.5	-0.2	.00	-19.2	-0.4	2.94	0.0



200 HZ COMPONENT, 10 DB PEAK ABOVE RMS NOISE

TIME	BRITISH			FRENCH		
	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE COEF (DB)	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE CORR (DB)
0.5	-0.7	.00	-17.8	-0.7	3.46	0.5
1.0	-0.7	.00	-24.9	-0.8	3.71	0.8
1.5	-0.6	.00	-22.8	-0.6	3.76	0.9
2.0	-0.6	.00	-20.8	-0.5	4.11	1.3
2.5	-0.5	.00	-20.4	-0.3	3.40	0.5
3.0	-0.4	.00	-18.4	-0.2	3.80	0.9
3.5	-0.3	.00	-20.9	-0.2	3.87	1.0
4.0	-0.5	.00	-23.6	-0.6	3.36	0.4
4.5	-0.3	.00	-23.6	-0.3	3.54	0.6
5.0	-0.7	.00	-21.0	-0.5	3.62	0.7
5.5	0.0	.00	-20.4	0.0	3.48	0.6
6.0	-0.6	.00	-23.1	-0.4	3.78	0.9
6.5	-0.5	.00	-19.4	-0.5	4.11	1.3
7.0	-0.3	.00	-25.6	0.0	3.32	0.4
7.5	-0.5	.00	-20.7	-0.6	3.76	0.9
8.0	-0.3	.00	-24.8	-0.3	3.79	0.9
8.5	-0.5	.00	-23.3	-0.3	3.72	0.8
9.0	-0.2	.00	-20.7	-0.2	3.44	0.5
9.5	-0.7	.00	-25.0	-0.7	3.86	1.0
10.0	-0.3	.00	-20.6	-0.2	3.66	0.8
10.5	-0.9	.00	-17.2	-1.0	4.14	1.3

400 HZ. COMP. RUN #3, 10 DB PEAK ABOVE RMS NOISE

TIME	BRITISH			FRENCH		
	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE COEF (DB)	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE CORR (DB)
0.5	-1.0	.00	-13.5	-1.0	4.05	1.2
1.0	-0.6	.00	-20.1	-0.7	3.51	0.6
1.5	-0.2	.00	-18.4	-0.3	3.45	0.5
2.0	-0.4	.00	-21.3	-0.7	3.35	0.4
2.5	-0.6	.00	-20.0	-0.6	3.39	0.5
3.0	-0.3	.00	-21.6	-0.6	3.35	0.4
3.5	0.0	.00	-20.2	-0.3	3.29	0.3
4.0	-0.3	.00	-16.4	-0.4	4.01	1.2
4.5	0.0	.00	-23.1	0.0	3.29	0.3
5.0	-0.5	.00	-23.8	-0.6	3.56	0.6
5.5	-0.3	.00	-23.1	-0.3	3.61	0.7
6.0	0.0	.00	-20.4	0.0	3.43	0.5
6.5	-0.2	.00	-19.1	-0.3	3.64	0.7
7.0	-0.3	.00	-20.6	-0.3	3.90	1.0
7.5	-0.4	.00	-20.6	-0.8	3.61	0.7
8.0	-0.3	.00	-23.0	-0.2	3.38	0.4
8.5	0.0	.00	-18.3	0.0	3.54	0.6
9.0	-0.2	.00	-21.4	-0.2	3.01	0.0
9.5	-0.2	.00	-22.7	-0.3	3.37	0.4
10.0	-0.3	.00	-20.7	-0.5	3.45	0.5
10.5	-0.4	.00	-16.6	-0.5	3.68	0.8

800 HZ. COMP., RUN #4, 10 DB PEAK ABOVE RMS NOISE

TIME	BRITISH			FRENCH		
	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE COEF (DB)	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE CORR (DB)
0.5	0.0	.00	-15.7	0.0	3.48	0.6
1.0	-0.2	.00	-15.7	-0.2	3.58	0.7
1.5	0.0	.00	-20.0	-0.2	3.08	0.1
2.0	-0.5	.00	-18.3	-0.5	3.17	0.2
2.5	-0.3	.00	-21.9	-0.2	3.11	0.1
3.0	-0.4	.00	-18.8	-0.4	3.16	0.2
3.5	0.0	.00	-22.3	-0.3	3.09	0.1
4.0	-0.2	.00	-22.3	0.0	3.06	0.1
4.5	-0.2	.00	-20.3	-0.3	3.38	0.4
5.0	-0.2	.00	-20.3	-0.2	2.91	0.0
5.5	0.0	.00	-13.2	-0.2	3.91	1.0
6.0	-0.3	.00	-21.5	-0.3	3.16	0.2
6.5	-0.4	.00	-17.4	-0.5	3.14	0.2
7.0	-0.5	.00	-19.2	-0.7	3.62	0.7
7.5	0.0	.00	-17.6	0.0	3.16	0.2
8.0	0.0	.00	-20.2	-0.2	3.15	0.2
8.5	-0.2	.00	-21.5	-0.2	3.10	0.1
9.0	-0.5	.00	-19.6	-0.6	3.20	0.2
9.5	-0.3	.00	-19.8	0.0	3.33	0.4
10.0	-0.3	.00	-19.8	-0.2	3.39	0.5
10.5	-0.5	.00	-21.7	-0.4	3.31	0.4

200 HZ. COMP., RUN #5, 20 DB PEAK ABOVE RMS NOISE

TIME	BRITISH			FRENCH		
	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE COEF (DB)	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE CORR (DB)
0.5	0.0	14	-8.3	-0.7	14.62	13.3
1.0	-0.3	12	-9.0	0.0	14.11	12.7
1.5	-0.2	17	-7.6	-0.2	13.98	12.6
2.0	0.0	11	-9.2	-0.2	12.58	11.0
2.5	0.0	19	-7.2	0.0	12.70	11.1
3.0	0.0	13	-8.1	-0.4	13.05	11.5
3.5	-0.4	13	-8.6	-0.7	16.39	15.3
4.0	-0.2	12	-9.0	-0.3	12.55	10.9
4.5	-0.4	13	-8.8	-0.4	13.31	11.8
5.0	-0.4	17	-7.6	-0.3	12.90	11.3
5.5	-0.4	16	-7.8	-0.3	15.11	13.8
6.0	-0.4	16	-7.9	-1.0	14.55	13.2
6.5	-0.5	19	-7.2	-0.4	13.88	12.4
7.0	-0.5	11	-9.4	-0.4	12.35	10.7
7.5	-0.4	11	-9.2	-0.4	14.00	12.6
8.0	-0.4	16	-7.7	-0.6	12.76	11.2
8.5	-0.2	06	-11.6	-0.5	12.65	11.0
9.0	-0.6	08	-10.7	-1.1	14.39	13.0
9.5	-0.2	08	-10.9	-0.6	12.10	10.4
10.0	-0.3	10	-9.8	-0.6	12.26	10.6
10.5	-0.5	19	-7.1	-0.5	13.25	11.7

400 HZ. COMP., RUN #6, 20 DB PEAK ABOVE RMS NOISE

TIME	BRITISH			FRENCH		
	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE COEF (DB)	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE CORR (DB)
0.5	-0.7	2.00	3.0	-0.7	26.06	26.4
1.0	-0.6	.57	-2.4	-0.5	17.62	16.7
1.5	-0.3	1.22	0.9	-0.2	21.65	21.3
2.0	0.0	.67	-1.7	0.0	19.30	18.6
2.5	-0.4	1.35	1.3	-0.3	18.32	17.5
3.0	-0.9	.85	-0.7	-1.1	19.03	18.3
3.5	-0.6	1.02	0.1	-0.3	20.82	20.4
4.0	-0.3	1.28	1.1	-0.2	19.01	18.3
4.5	-0.2	1.80	2.6	0.0	22.80	22.6
5.0	-0.5	.93	-0.3	-0.3	20.17	19.6
5.5	0.0	1.14	0.6	0.0	22.95	22.8
6.0	-1.0	1.14	0.6	-1.0	19.33	18.7
6.5	-0.6	.88	-0.5	-0.5	18.54	17.8
7.0	-0.4	.72	-1.4	-0.2	19.62	19.0
7.5	-0.2	1.38	1.4	0.0	21.69	21.4
8.0	-0.3	.63	-2.0	-0.2	18.06	17.2
8.5	-0.6	1.10	0.4	-0.9	20.41	19.9
9.0	0.0	1.02	0.1	0.0	19.87	19.3
9.5	-0.5	1.27	1.1	-0.3	21.05	20.6
10.0	-0.4	1.16	0.7	-0.3	19.48	18.8
10.5	-0.6	1.10	0.4	-0.4	20.72	20.3

800 HZ. COMP., RUN #7, 20 DB PEAK ABOVE RMS NOISE

TIME	BRITISH			FRENCH		
	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE COEF (DB)	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE CORR (DB)
0.5	-0.3	1.27	1.1	-0.4	17.84	17.0
1.0	-0.6	1.67	2.2	-0.7	16.64	15.6
1.5	0.0	1.85	2.7	-0.3	18.23	17.4
2.0	-0.3	1.60	2.0	-0.4	20.04	19.5
2.5	-0.5	1.85	2.7	-0.7	21.10	20.7
3.0	-0.3	.98	0.0	-0.5	17.07	16.1
3.5	-0.5	1.40	1.5	-0.8	15.85	14.7
4.0	-0.3	1.85	2.7	-0.6	18.37	17.6
4.5	-0.2	1.78	2.5	-0.4	20.31	19.8
5.0	-0.3	1.13	0.5	-0.6	16.27	15.2
5.5	0.0	1.65	2.2	-0.4	19.50	18.9
6.0	-0.2	2.80	4.5	0.0	22.08	21.8
6.5	-0.3	1.59	2.0	-0.7	18.36	17.6
7.0	-0.2	1.53	1.9	-0.3	17.02	16.0
7.5	0.0	2.62	4.2	-0.5	22.21	22.0
8.0	-0.7	.98	0.0	-0.5	17.42	16.5
8.5	-0.6	1.55	1.9	-0.6	18.28	17.5
9.0	-0.6	2.20	3.4	-0.4	20.16	19.6
9.5	-0.6	.86	-0.6	-0.7	15.01	13.7
10.0	0.0	2.11	3.2	-0.4	19.32	18.7
10.5	-1.5	2.57	4.1	-1.7	22.76	22.6



200 HZ. COMP., RUN #8, 30 DB PEAK ABOVE RRMS NOISE

TIME	BRITISH			FRENCH		
	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE COEF (DB)	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE CORR (DB)
0.5	-0.4	14.31	11.6	-0.2	22.30	22.1
1.0	-0.4	14.40	11.6	-0.3	22.43	22.2
1.5	-0.2	13.30	11.2	-0.2	21.89	21.6
2.0	-0.2	15.13	11.8	-0.2	22.67	22.5
2.5	-0.8	17.12	12.3	-0.3	24.34	24.4
3.0	-0.3	15.79	12.0	-0.8	25.47	25.7
3.5	-0.3	13.99	11.5	-0.2	22.38	22.2
4.0	0.0	13.73	11.4	0.0	23.01	22.9
4.5	-0.5	14.16	11.5	-0.3	22.52	22.3
5.0	-0.3	13.80	11.4	-0.3	22.29	22.1
5.5	-1.0	14.18	11.5	-1.3	28.05	28.6
6.0	-0.5	12.37	10.9	-0.4	22.44	22.2
6.5	-0.3	13.25	11.2	-0.3	21.61	21.3
7.0	-0.3	14.91	11.7	-0.3	22.61	22.4
7.5	-0.2	14.68	11.7	-0.2	22.02	21.7
8.0	-0.8	15.66	11.9	-0.3	22.67	22.5
8.5	0.0	13.49	11.3	-1.1	26.59	27.0
9.0	-0.2	11.65	10.7	-0.2	22.30	22.1
9.5	0.0	12.84	11.1	0.0	22.25	22.0
10.0	0.0	13.02	11.1	0.0	22.66	22.5
10.5	0.0	13.74	11.4	0.0	22.12	21.9

400 HZ. COMP., RUN #9, 30 DB PEAK ABOVE RMS NOISE

TIME	BRITISH			FRENCH		
	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE COEF (DB)	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE CORR (DB)
0.5	-0.8	34.31	15.4	-0.6	51.51	55.5
1.0	0.0	31.40	15.0	0.0	50.68	54.5
1.5	-0.3	36.00	15.6	0.0	49.69	53.4
2.0	-0.3	34.97	15.4	-0.2	50.75	54.6
2.5	-0.2	30.54	14.8	0.0	49.23	52.9
3.0	-1.5	46.91	16.7	-0.9	58.85	63.8
3.5	0.0	30.69	14.9	0.0	49.48	53.1
4.0	0.0	35.31	15.5	0.0	51.19	55.1
4.5	-0.2	33.80	15.3	0.0	50.03	53.8
5.0	-0.3	37.19	15.7	0.0	49.13	52.7
5.5	-0.9	47.34	16.8	-0.7	55.66	60.2
6.0	-0.2	31.47	15.0	-0.7	55.40	59.9
6.5	-0.5	31.74	15.0	0.0	49.02	52.6
7.0	-0.4	36.54	15.6	-0.2	50.50	54.3
7.5	-0.2	35.70	15.5	-0.2	50.43	54.2
8.0	0.0	30.77	14.9	0.0	49.92	53.6
8.5	-0.8	48.10	16.8	-0.9	59.44	64.5
9.0	-0.2	32.18	15.1	0.0	49.19	52.8
9.5	-0.6	31.41	15.0	0.0	48.62	52.2
10.0	-0.4	31.40	15.0	-0.3	48.36	51.9
10.5	-0.2	36.40	15.6	0.0	49.39	53.0

800 HZ. COMP., RUN #10, 30 DB PEAK ABOVE RMS NOISE

TIME	BRITISH			FRENCH		
	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE COEF (DB)	0.5 SEC RMS (RE: MAX)	IMPULSE COEF	IMPULSE CORR (DB)
0.5	-1.1	53.00	17.2	-1.1	95.21	105.4
1.0	-0.2	41.62	16.2	-0.5	84.78	93.5
1.5	-0.8	59.88	17.8	-1.0	100.77	111.8
2.0	-0.4	39.80	16.0	-0.2	85.07	93.8
2.5	-0.3	42.67	16.3	-0.2	86.48	95.4
3.0	0.0	38.12	15.8	-0.2	80.20	88.2
3.5	0.0	37.85	15.8	-0.3	83.53	92.0
4.0	0.0	42.71	16.3	-0.3	80.99	89.1
4.5	-0.9	55.79	17.5	-1.0	94.88	105.0
5.0	-0.3	39.31	15.9	-0.2	85.05	93.8
5.5	-0.2	44.59	16.5	-0.4	88.22	97.4
6.0	0.0	42.58	16.3	-0.2	83.09	91.5
6.5	0.0	35.16	15.5	0.0	83.55	92.1
7.0	-0.5	59.49	17.7	-0.9	99.46	110.3
7.5	-0.2	40.20	16.0	-0.3	81.64	89.9
8.0	-0.2	38.62	15.9	-0.2	83.70	92.2
8.5	-0.2	38.68	15.9	-0.2	84.44	93.1
9.0	-0.3	39.54	16.0	-0.3	82.82	91.2
9.5	-0.8	60.57	17.8	-0.2	86.16	95.1
10.0	0.0	35.00	15.4	-0.7	97.06	107.5
10.5	0.0	42.32	16.3	-0.3	85.89	94.8
11.0	-0.7	46.83	16.7	-0.6	91.78	101.5

RUN #1 SHAPED NOISE

TIME	PEAK SPL	TIME	PEAK SPL	TIME	PEAK SPL	TIME	PEAK SPL
0.5	86.9						
1.0	86.5						
1.5	85.9						
2.0	86.6						
2.5	86.1						
3.0	86.4						
3.5	85.8						
4.0	85.5						
4.5	85.1						
5.0	86.7						
5.5	85.2						
6.0	87.3						
6.5	86.3						
7.0	85.5						
7.5	86.1						
8.0	87.0						
8.5	86.1						
9.0	87.6						
9.5	86.0						
10.0	86.0						
10.5	86.5						

RUN #2: 200 HZ 10 DB PEAK ABOVE RMS NOISE

TIME	PEAK SPL	TIME	PEAK SPL	TIME	PEAK SPL	TIME	PEAK SPL
0.5	86.8						
1.0	85.2						
1.5	86.5						
2.0	86.0						
2.5	86.2						
3.0	86.7						
3.5	87.0						
4.0	87.1						
4.5	87.0						
5.0	84.9						
5.5	86.9						
6.0	86.7						
6.5	86.4						
7.0	85.9						
7.5	84.9						
8.0	86.3						
8.5	86.7						
9.0	85.6						
9.5	85.4						
10.0	87.1						
10.5	85.1						

RUN #3: 400 HZ 10 DB PEAK ABOVE RMS NOIS

TIME	PEAK SPL	TIME	PEAK SPL	TIME	PEAK SPL	TIME	PEAK SPL
0.5	87.2						
1.0	86.2						
1.5	86.5						
2.0	86.2						
2.5	86.6						
3.0	86.0						
3.5	87.2						
4.0	87.7						
4.5	86.5						
5.0	87.1						
5.5	86.1						
6.0	86.7						
6.5	87.0						
7.0	86.5						
7.5	86.3						
8.0	85.6						
8.5	86.4						
9.0	85.9						
9.5	86.3						
10.0	87.1						
10.5	86.2						



RUN #4: 800 HZ 10 DB PEAK ABOVE RMS NOISE

TIME	PEAK SPL	TIME	PEAK SPL	TIME	PEAK SPL	TIME	PEAK SPL
0.5	90.0						
1.0	89.5						
1.5	86.9						
2.0	89.0						
2.5	86.2						
3.0	86.8						
3.5	88.3						
4.0	86.2						
4.5	87.5						
5.0	85.8						
5.5	89.3						
6.0	86.3						
6.5	87.4						
7.0	87.2						
7.5	86.5						
8.0	87.1						
8.5	87.1						
9.0	87.5						
9.5	87.9						
10.0	87.3						
10.5	86.7						

RUN #5: 200 HZ 20DB PEAK ABOVE RMS NOISE

TIME	PEAK SPL	TIME	PEAK SPL	TIME	PEAK SPL	TIME	PEAK SPL
0.5	88.1						
1.0	88.6						
1.5	88.0						
2.0	87.4						
2.5	88.4						
3.0	86.9						
3.5	88.6						
4.0	87.9						
4.5	88.7						
5.0	87.6						
5.5	89.4						
6.0	87.3						
6.5	88.3						
7.0	88.4						
7.5	87.9						
8.0	88.3						
8.5	87.9						
9.0	89.5						
9.5	87.7						
10.0	86.9						
10.5	87.4						

RUN #6: 400 HZ 20 DB PEAK ABOVE RMS NOISE

TIME	PEAK SPL	TIME	PEAK SPL	TIME	PEAK SPL	TIME	PEAK SPL
0.5	91.8						
1.0	90.7						
1.5	92.0						
2.0	91.4						
2.5	92.8						
3.0	91.6						
3.5	92.1						
4.0	91.8						
4.5	92.3						
5.0	91.1						
5.5	91.8						
6.0	92.0						
6.5	91.3						
7.0	91.3						
7.5	92.7						
8.0	91.7						
8.5	92.1						
9.0	92.3						
9.5	92.2						
10.0	91.7						
10.5	92.5						

RUN #7 800 HZ 20 DB PEAK ABOVE RMS NOISE

TIME	PEAK SPL	TIME	PEAK SPL	TIME	PEAK SPL	TIME	PEAK SPL
0.5	95.2						
1.0	95.1						
1.5	94.6						
2.0	95.1						
2.5	94.9						
3.0	95.3						
3.5	94.4						
4.0	94.4						
4.5	95.1						
5.0	94.3						
5.5	94.1						
6.0	95.6						
6.5	95.2						
7.0	94.6						
7.5	95.2						
8.0	94.3						
8.5	94.3						
9.0	95.4						
9.5	94.1						
10.0	95.7						
10.5	94.3						

RUN #8: 200 HZ 30 DB PEAK ABOVE RMS NOISE

TIME	PEAK SPL	TIME	PEAK SPL	TIME	PEAK SPL	TIME	PEAK SPL
0.5	92.2						
1.0	92.2						
1.5	93.0						
2.0	92.1						
2.5	92.5						
3.0	92.4						
3.5	91.5						
4.0	92.4						
4.5	92.4						
5.0	91.4						
5.5	92.4						
6.0	91.8						
6.5	92.0						
7.0	92.1						
7.5	92.3						
8.0	92.0						
8.5	92.0						
9.0	92.0						
9.5	92.7						
10.0	92.0						
10.5	92.2						

RUN #7: 400 HZ 30 DB PEAK ABOVE RMS NOISE

TIME	PEAK SPL	TIME	PEAK SPL	TIME	PEAK SPL	TIME	PEAK SPL
0.5	98.4						
1.0	99.0						
1.5	98.4						
2.0	98.7						
2.5	98.5						
3.0	98.5						
3.5	99.1						
4.0	98.2						
4.5	98.7						
5.0	98.8						
5.5	98.7						
6.0	97.9						
6.5	97.9						
7.0	98.6						
7.5	98.4						
8.0	98.4						
8.5	98.6						
9.0	98.8						
9.5	98.5						
10.0	98.0						
10.5	98.6						



RUN #10: 800 HZ 10 DB PEAK ABOVE RMS NOISE

TIME	PEAK SPL	TIME	PEAK SPL	TIME	PEAK SPL	TIME	PEAK SPL
0.5	103.0						
1.0	103.0						
1.5	102.8						
2.0	103.2						
2.5	103.0						
3.0	102.9						
3.5	103.2						
4.0	102.9						
4.5	103.0						
5.0	103.1						
5.5	102.8						
6.0	103.1						
6.5	103.0						
7.0	102.8						
7.5	103.0						
8.0	103.1						
8.5	103.3						
9.0	102.8						
9.5	103.5						
10.0	103.5						
10.5	103.3						
11.0	103.2						

SHAPED NOISE : RUN #1, 3-25-77

T	PNL	P.T.	PNLT	DA	A-LEV	D-LEV	N-LEV	BAND #
0.0	68.5	1.4	69.9	62.4	61.0	64.2	71.2	1.1
0.5	79.3	2.5	82.3	73.0	71.4	74.5	81.5	2.4
1.0	82.2	2.6	84.8	75.3	73.6	76.8	83.8	2.4
1.5	83.1	2.7	85.8	76.2	74.5	77.6	84.6	2.4
2.0	83.6	2.6	86.2	76.7	75.1	78.1	85.1	2.4
2.5	83.9	2.6	86.5	76.9	75.2	78.3	85.3	2.4
3.0	84.0	2.6	86.6	77.0	75.3	78.4	85.4	2.4
3.5	84.1	2.6	86.7	77.3	75.4	78.6	85.6	2.4
4.0	84.1	2.6	86.7	77.3	75.4	78.6	85.6	2.4
4.5	84.0	2.6	86.6	77.2	75.3	78.5	85.5	2.4
5.0	84.0	2.6	86.6	77.1	75.4	78.5	85.5	2.4
5.5	84.0	2.6	86.6	77.2	75.4	78.5	85.5	2.4
6.0	84.0	2.6	86.6	77.3	75.5	78.6	85.6	2.4
6.5	84.1	2.6	86.7	77.3	75.5	78.6	85.6	2.4
7.0	84.2	2.6	86.8	77.4	75.6	78.7	85.7	2.4
7.5	84.2	2.5	86.7	77.3	75.6	78.7	85.7	2.4
8.0	84.1	2.5	86.6	77.2	75.7	78.7	85.7	2.4
8.5	84.0	2.5	86.5	77.1	75.5	78.6	85.6	2.4
9.0	84.0	2.5	86.5	77.1	75.6	78.6	85.6	2.4
9.5	84.1	2.5	86.6	77.2	75.6	78.7	85.7	2.4
10.0	84.1	2.5	86.6	77.2	75.5	78.6	85.6	2.4
10.5	84.0	2.5	86.5	77.1	75.4	78.5	85.5	2.4

MAXIMUM VALUES IN BANDS, PNLC = 84.5

50	63	80	100	125	160	200	250	315	400
56.0	59.9	64.6	65.9	61.9	59.4	54.9	52.2	59.3	63.2
70.6	69.4	68.2	68.2	68.4	64.8	60.9	54.1	43.0	47.9
51.0	45.5	35.0	40.0						

SPECTRUM FOR MAX PNLT

52.8	59.7	63.4	65.4	61.8	58.3	53.0	50.5	58.8	62.1
70.1	69.0	68.2	68.2	68.2	64.7	60.8	54.0	43.0	47.7
51.0	45.5	35.0	40.0						

	TIME	MAX.	D10	I-10	D20	I-20	D/15+M	D/30+M
P.T.	1.5	2.7						
PNL	7.0	84.2	10.5	93.8	10.5	93.8	82.7	79.6
PNLT	7.0	86.8	10.5	96.3	10.5	96.3	85.3	82.2
A-LEV	8.0	75.7	10.5	85.2	10.5	85.2	74.2	71.1
N-LEV	7.0	85.7	10.5	95.3	10.5	95.3	84.2	81.1

EPNL = 86.3

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BOLT BERANEK AND NEWMAN INC CANOGA PARK CALIF  
PHYSICAL ANALYSIS OF THE IMPULSIVE ASPECTS OF HELICOPTER NOISE.(U)  
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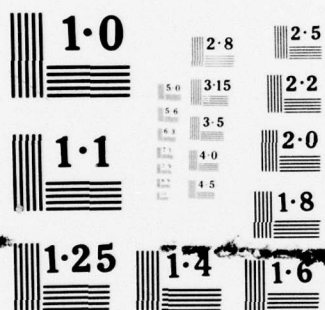
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MICROCOPY RESOLUTION TEST CHART

SHAPED NOISE : RUN #1, 3-25-77

T	PNL	P.T.	PNLT	DA	A-LEV	D-LEV	N-LEV	BAND #
0.0	68.5	1.4	69.9	62.4	61.0	64.2	71.2	1.1
0.5	79.3	2.5	82.3	73.0	71.4	74.5	81.5	2.4
1.0	82.2	2.6	84.8	75.3	73.6	76.8	83.8	2.4
1.5	83.1	2.7	85.8	76.2	74.5	77.6	84.6	2.4
2.0	83.6	2.6	86.2	76.7	75.1	78.1	85.1	2.4
2.5	83.9	2.6	86.5	76.9	75.2	78.3	85.3	2.4
3.0	84.0	2.6	86.6	77.0	75.3	78.4	85.4	2.4
3.5	84.1	2.6	86.7	77.3	75.4	78.6	85.6	2.4
4.0	84.1	2.6	86.7	77.3	75.4	78.6	85.6	2.4
4.5	84.0	2.6	86.6	77.2	75.3	78.5	85.5	2.4
5.0	84.0	2.6	86.6	77.1	75.4	78.5	85.5	2.4
5.5	84.0	2.6	86.6	77.2	75.4	78.5	85.5	2.4
6.0	84.0	2.6	86.6	77.3	75.5	78.6	85.6	2.4
6.5	84.1	2.6	86.7	77.3	75.5	78.6	85.6	2.4
7.0	84.2	2.6	86.8	77.4	75.6	78.7	85.7	2.4
7.5	84.2	2.5	86.7	77.3	75.6	78.7	85.7	2.4
8.0	84.1	2.5	86.6	77.2	75.7	78.7	85.7	2.4
8.5	84.0	2.5	86.5	77.1	75.5	78.6	85.6	2.4
9.0	84.0	2.5	86.5	77.1	75.6	78.6	85.6	2.4
9.5	84.1	2.5	86.6	77.2	75.6	78.7	85.7	2.4
10.0	84.1	2.5	86.6	77.2	75.5	78.6	85.6	2.4
10.5	84.0	2.5	86.5	77.1	75.4	78.5	85.5	2.4

MAXIMUM VALUES IN BANDS, PNLC = 84.5

50	63	80	100	125	160	200	250	315	400
56.0	59.9	64.6	65.9	61.9	59.4	54.9	52.2	59.3	63.2
70.6	69.4	68.2	68.2	68.4	64.8	60.9	54.1	43.0	47.9
51.0	45.5	35.0	40.0						

SPECTRUM FOR MAX PNLT

52.8	59.7	63.4	65.4	61.8	58.8	53.0	50.5	58.8	62.1
70.1	69.0	68.2	68.2	68.2	64.7	60.8	54.0	43.0	47.7
51.0	45.5	35.0	40.0						

	TIME	MAX.	D10	I-10	D20	I-20	D/15+M	D/30+M
P.T.	1.5	2.7						
PNL	7.0	84.2	10.5	93.8	10.5	93.8	82.7	79.6
PNLT	7.0	86.8	10.5	96.3	10.5	96.3	85.3	82.2
A-LEV	8.0	75.7	10.5	85.2	10.5	85.2	74.2	71.1
N-LEV	7.0	85.7	10.5	95.3	10.5	95.3	84.2	81.1

EPNL = 86.3

200 HZ. COMP., RUN #2, 10 DB PEAK ABOVE RMS NOISE

T	PNL	P.T.	PNLT	OA	A-LEV	D-LEV	N-LEV	BAND #
0.0	51.4	1.5	52.9	48.1	45.5	48.8	55.8	1.1
0.5	79.3	2.1	81.4	72.5	70.3	73.6	80.6	2.1
1.0	82.3	2.5	84.8	75.4	73.2	76.5	83.5	2.4
1.5	83.4	2.6	86.0	76.6	74.4	77.6	84.6	2.4
2.0	83.9	2.7	86.6	77.1	74.7	77.9	84.9	2.4
2.5	84.4	2.7	87.1	77.6	75.2	78.4	85.4	2.4
3.0	84.8	2.7	87.5	77.9	75.5	78.8	85.8	2.4
3.5	84.9	2.6	87.5	78.0	75.6	78.8	85.8	2.4
4.0	84.9	2.6	87.5	78.0	75.7	78.9	85.9	2.4
4.5	84.9	2.7	87.6	78.1	75.7	78.9	85.9	2.4
5.0	84.8	2.6	87.4	78.0	75.6	78.9	85.9	2.4
5.5	85.1	2.6	87.7	78.2	75.8	79.1	86.1	2.4
6.0	85.0	2.7	87.7	78.1	75.6	78.9	85.9	2.4
6.5	84.9	2.6	87.5	78.1	75.7	78.9	85.9	2.4
7.0	85.0	2.5	87.5	78.2	75.7	79.0	86.0	2.4
7.5	84.9	2.7	87.6	78.1	75.7	78.9	85.9	2.4
8.0	85.1	2.6	87.7	78.2	75.8	79.0	86.0	2.4
8.5	85.0	2.6	87.6	78.2	75.7	79.0	86.0	2.4
9.0	85.1	2.5	87.6	78.2	75.9	79.1	86.1	2.4
9.5	84.9	2.5	87.4	78.1	75.7	78.9	85.9	2.4
10.0	85.0	2.6	87.6	78.1	75.7	79.0	86.0	2.4
10.5	84.4	2.6	87.0	77.6	75.2	78.4	85.4	2.4

MAXIMUM VALUES IN BANDS, PNLC = 85.3

50	63	80	100	125	160	200	250	315	400
58.1	60.8	65.7	66.9	64.7	64.7	64.8	63.5	61.2	63.2
70.7	69.7	67.9	68.3	68.5	64.9	61.3	54.1	43.0	48.0
51.1	45.6	35.0	40.0						

SPECTRUM FOR MAX PNLT

56.7	59.9	64.7	66.5	63.8	64.4	64.6	63.1	61.2	62.8
70.7	69.5	67.7	68.2	68.2	64.6	61.3	53.8	42.9	47.6
51.0	45.5	34.7	39.8						

	TIME	MAX.	D10	I-10	D20	I-20	D/15+M	D/30+M
P.T.	2.0	2.7						
PNL	5.5	85.1	10.5	94.5	10.5	94.5	83.6	80.5
PNLT	5.5	87.7	10.5	97.1	10.5	97.1	86.2	83.1
A-LEV	7.0	75.9	10.5	85.3	10.5	85.3	74.4	71.3
N-LEV	5.5	86.1	10.5	95.5	10.5	95.5	84.6	81.5

EPNL = 87.1



400 HZ. COMP., RUN #3, 10 DB PEAK ABOVE RMS NOISE

T	PNL	P.T.	PNLT	OA	A-LEV	D-LEV	N-LEV	BAND #
0.0	40.5	6.7	47.2	41.4	39.5	41.3	48.3	1.1
0.5	78.6	2.0	80.6	71.9	69.8	73.0	80.0	2.1
1.0	81.8	2.6	84.4	74.9	73.0	76.1	83.1	2.4
1.5	83.2	2.6	85.8	76.3	74.3	77.4	84.4	2.4
2.0	83.6	2.5	86.1	76.7	74.8	77.9	84.9	2.4
2.5	83.9	2.6	86.5	76.9	74.9	78.1	85.1	2.4
3.0	83.9	2.6	86.5	77.0	75.1	78.3	85.3	2.4
3.5	84.1	2.6	86.7	77.2	75.4	78.5	85.5	2.4
4.0	84.3	2.6	86.9	77.4	75.5	78.6	85.6	2.4
4.5	84.4	2.7	87.1	77.5	75.5	78.7	85.7	2.4
5.0	84.3	2.6	86.9	77.5	75.5	78.6	85.6	2.4
5.5	84.3	2.6	86.9	77.4	75.5	78.6	85.6	2.4
6.0	84.4	2.6	87.0	77.5	75.5	78.6	85.6	2.4
6.5	84.5	2.6	87.1	77.5	75.6	78.7	85.7	2.4
7.0	84.4	2.6	87.0	77.5	75.5	78.7	85.7	2.4
7.5	84.4	2.6	87.0	77.3	75.5	78.7	85.7	2.4
8.0	84.6	2.6	87.2	77.4	75.5	78.7	85.7	2.4
8.5	84.6	2.7	87.3	77.6	75.6	78.8	85.8	2.4
9.0	84.5	2.6	87.1	77.5	75.6	78.7	85.7	2.4
9.5	84.4	2.6	87.0	77.6	75.6	78.7	85.7	2.4
10.0	84.2	2.6	86.8	77.4	75.4	78.5	85.5	2.4
10.5	84.3	2.6	86.9	77.4	75.5	78.6	85.6	2.4

MAXIMUM VALUES IN BANDS, PNLC = 84.8

	50	63	80	100	125	160	200	250	315	400
55.3	58.4	64.0	65.5	62.5	60.3	58.5	59.2	61.8	64.7	
71.1	69.7	67.8	67.9	68.0	64.7	61.0	54.0	42.8	47.6	
50.8	45.2	34.7	39.8							

SPECTRUM FOR MAX PNLT

52.6	57.6	63.7	64.9	61.1	59.9	57.5	58.8	61.1	64.1
71.0	69.5	67.5	67.5	67.8	64.5	60.7	53.9	42.7	47.5
50.7	45.2	34.5	39.6						

	TIME	MAX.	D10	I-10	D20	I-20	D/15+M	D/30+M
P.T.	0.0	6.7						
PNL	8.0	84.6	10.5	94.0	10.5	94.0	83.1	80.0
PNLT	8.5	87.3	10.5	96.6	10.5	96.6	85.8	82.7
A-LEV	6.5	75.6	10.5	85.1	10.5	85.1	74.1	71.0
N-LEV	8.5	85.8	10.5	95.2	10.5	95.2	84.3	81.2

EPNL = 86.6

800 HZ. COMP., RUNN #4, 10 DB PEAK ABOVE RMS NOISE

T	PNL	P.T.	PNLT	DA	A-LEV	D-LEV	N-LEV	BAND #
0.0	60.3	6.7	67.0	54.9	53.7	57.1	64.1	1.1
0.5	79.2	2.3	81.5	72.5	70.8	73.8	80.8	2.4
1.0	81.9	2.5	84.4	75.1	73.4	76.5	83.5	2.4
1.5	83.0	2.5	85.5	76.2	74.5	77.6	84.6	2.4
2.0	83.3	2.7	86.0	76.6	74.9	78.0	85.0	2.4
2.5	83.7	2.6	86.3	76.9	75.2	78.2	85.2	2.4
3.0	83.9	2.5	86.4	77.0	75.2	78.4	85.4	2.4
3.5	83.9	2.6	86.5	77.1	75.5	78.5	85.5	2.4
4.0	84.0	2.6	86.6	77.3	75.5	78.6	85.6	2.4
4.5	84.0	2.5	86.5	77.2	75.5	78.5	85.5	2.4
5.0	84.0	2.5	86.5	77.2	75.6	78.6	85.6	2.4
5.5	84.0	2.6	86.6	77.2	75.5	78.6	85.6	2.4
6.0	84.0	2.6	86.6	77.3	75.6	78.6	85.6	2.4
6.5	83.9	2.6	86.5	77.1	75.4	78.5	85.5	2.4
7.0	83.8	2.5	86.3	77.0	75.3	78.4	85.4	2.4
7.5	84.0	2.5	86.5	77.2	75.6	78.6	85.6	2.4
8.0	84.1	2.5	86.6	77.2	75.6	78.6	85.6	2.4
8.5	84.1	2.5	86.6	77.3	75.6	78.7	85.7	2.4
9.0	83.9	2.5	86.4	77.2	75.4	78.5	85.5	2.4
9.5	84.0	2.7	86.7	77.2	75.4	78.5	85.5	2.4
10.0	84.1	2.6	86.7	77.3	75.5	78.6	85.6	2.4
10.5	84.0	2.5	86.5	77.2	75.3	78.4	85.4	2.4

MAXIMUM VALUES IN BANDS, PNLC = 84.4

50	63	80	100	125	160	200	250	315	400
54.9	58.8	64.3	66.1	62.2	58.6	54.3	53.1	59.5	63.4
70.6	69.7	68.1	68.4	68.2	64.6	60.9	54.0	43.2	47.7
50.9	45.6	35.0	39.8						

SPECTRUM FOR MAX PNLT

53.3	58.1	64.3	69.3	61.1	58.4	53.7	52.2	58.3	62.2
70.2	69.0	68.0	68.2	67.6	64.3	60.5	53.9	43.1	47.6
50.7	45.4	34.7	39.8						

	TIME	MAX.	D10	I-10	D20	I-20	D/15+M	D/30+M
P.T.	0.0	6.7						
PNL	8.0	84.1	10.5	93.7	10.5	93.7	82.6	79.5
PNLT	9.5	86.7	10.5	96.2	10.5	96.2	85.2	82.1
A-LEV	5.0	75.6	10.5	85.2	10.5	85.2	74.1	71.0
N-LEV	8.5	85.7	10.5	95.2	10.5	95.2	84.2	81.1

EPNL = 86.2

200 HZ. COMP., RUN #5, 20 DB PEAK ABOVE RMS NOISE

T	PNL	P.T.	PNLT	OA	A-LEV	D-LEV	N-LEV	BAND #
0.0	63.2	2.0	65.2	56.7	53.7	57.7	64.7	1.1
0.5	81.1	2.1	83.2	75.3	70.9	74.7	81.7	2.1
1.0	83.8	2.2	86.0	78.6	73.5	77.4	84.4	2.4
1.5	85.0	2.1	87.1	79.9	74.6	78.7	85.7	2.1
2.0	85.8	2.2	88.0	80.6	75.3	79.4	86.4	2.4
2.5	86.1	2.2	88.3	81.1	75.6	79.7	86.7	2.4
3.0	86.2	2.3	88.5	81.1	75.7	79.8	86.8	2.4
3.5	86.2	2.3	88.5	81.2	75.7	79.9	86.9	2.4
4.0	86.3	2.3	88.6	81.3	75.7	79.9	86.9	2.4
4.5	86.3	2.3	88.6	81.3	75.6	79.9	86.9	2.4
5.0	86.5	2.3	88.8	81.3	75.7	80.0	87.0	2.4
5.5	86.4	2.3	88.7	81.3	75.6	79.9	86.9	2.4
6.0	86.3	2.2	88.5	81.2	75.7	79.9	86.9	2.4
6.5	86.3	2.3	88.6	81.2	75.6	79.8	86.8	2.4
7.0	86.3	2.3	88.6	81.3	75.6	79.9	86.9	2.4
7.5	86.4	2.3	88.7	81.3	75.6	79.9	86.9	2.4
8.0	86.4	2.3	88.7	81.3	75.6	79.9	86.9	2.4
8.5	86.3	2.3	88.6	81.2	75.7	79.9	86.9	2.4
9.0	86.2	2.2	88.4	81.1	75.7	79.8	86.8	2.4
9.5	86.2	2.3	88.5	81.1	75.7	79.8	86.8	2.4
10.0	86.2	2.3	88.5	81.1	75.7	79.8	86.8	2.4
10.5	86.3	2.3	88.6	81.2	75.6	79.8	86.8	2.4

MAXIMUM VALUES IN BANDS, PNLC = 86.7

50	63	80	100	125	160	200	250	315	400
61.6	64.9	69.0	71.1	71.2	72.6	73.9	72.4	67.4	63.4
70.4	68.8	67.2	67.4	67.6	64.2	60.5	53.8	42.4	47.2
50.6	45.3	35.8	40.0						

SPECTRUM FOR MAX PNLT

60.4	64.9	67.1	70.7	70.9	72.6	73.9	72.3	67.2	62.6
69.7	68.5	67.2	66.9	67.1	64.1	60.5	53.6	42.4	47.2
50.5	45.1	35.6	40.0						

	TIME	MAX.	D10	I-10	D20	I-20	D/15+M	D/30+M
P.T.	3.0	2.3						
PNL	5.0	86.5	10.5	96.0	10.5	96.0	85.0	81.9
PNLT	5.0	88.8	10.5	98.2	10.5	98.2	87.3	84.2
A-LEV	3.0	75.7	10.5	85.4	10.5	85.4	74.2	71.1
N-LEV	5.0	87.0	10.5	96.5	10.5	96.5	85.5	82.4

EPNL = 88.2

400 HZ. COMP., RUN #6, 20 DB PEAK ABOVE RMS NOISE

T	PNL	P.T.	PNLT	OA	A-LEV	D-LEV	N-LEV	BAND #
0.0	53.7	6.7	60.4	49.9	47.4	50.7	57.7	1.1
0.5	80.1	2.0	82.1	73.2	70.4	73.8	80.8	2.1
1.0	83.1	2.2	85.3	76.3	73.5	76.9	83.9	2.4
1.5	84.6	2.2	86.8	77.7	74.8	78.2	85.2	2.4
2.0	85.2	2.3	87.5	78.5	75.5	78.9	85.9	2.4
2.5	85.6	2.3	87.9	78.8	75.7	79.2	86.2	2.4
3.0	85.7	2.2	87.9	78.9	75.9	79.3	86.3	2.4
3.5	85.6	2.3	87.9	78.9	75.9	79.4	86.4	2.4
4.0	85.7	2.2	87.9	79.1	75.9	79.4	86.4	2.4
4.5	85.9	2.2	88.1	79.2	76.1	79.6	86.6	2.4
5.0	85.9	2.2	88.1	79.3	76.1	79.6	86.6	2.4
5.5	86.2	2.2	88.4	79.4	76.2	79.7	86.7	2.4
6.0	85.9	2.2	88.1	79.1	76.0	79.5	86.5	2.4
6.5	85.8	2.2	88.0	79.1	76.0	79.5	86.5	2.4
7.0	85.8	2.2	88.0	79.2	76.0	79.5	86.5	2.4
7.5	86.1	2.2	88.3	79.4	76.2	79.7	86.7	2.4
8.0	86.1	2.2	88.3	79.4	76.2	79.7	86.7	2.4
8.5	85.9	2.2	88.1	79.3	76.2	79.7	86.7	2.4
9.0	85.9	2.3	88.2	79.3	76.3	79.7	86.7	2.4
9.5	85.8	2.2	88.0	79.2	76.1	79.6	86.6	2.4
10.0	85.9	2.2	88.1	79.2	76.0	79.6	86.6	2.4
10.5	85.9	2.2	88.1	79.3	76.1	79.6	86.6	2.4

MAXIMUM VALUES IN BANDS, PNLC = 86.4

50	63	80	100	125	160	200	250	315	400
55.5	60.0	64.5	66.0	63.6	64.5	66.5	68.3	69.1	70.0
72.5	70.6	67.6	67.6	67.5	64.2	60.4	53.7	42.6	47.1
50.2	44.8	35.6	39.8						

SPECTRUM FOR MAX PNLT

54.1	59.0	64.5	65.9	62.9	63.9	66.2	68.2	69.1	69.6
72.5	69.9	67.0	67.1	67.1	64.2	60.3	53.5	42.5	46.9
50.1	44.8	35.6	39.6						

	TIME	MAX.	D10	I-10	D20	I-20	D/15+M	D/30+M
P.T.	0.0	6.7						
PNL	5.5	86.2	10.5	95.5	10.5	95.5	84.7	81.6
PNLT	5.5	88.4	10.5	97.7	10.5	97.7	86.9	83.8
A-LEV	9.0	76.3	10.5	85.7	10.5	85.7	74.8	71.7
N-LEV	5.5	86.7	10.5	96.2	10.5	96.2	85.2	82.1

EPNL = 87.7



800 HZ. COMP., RUN #7, 20 DB PEAK ABOVE RMS NOISE

T	PNL	P.T.	PNLT	OA	A-LEV	D-LEV	N-LEV	BAND #
0.0	64.3	0.0	64.3	65.5	54.8	60.0	67.0	0.1
0.5	80.1	1.9	82.0	73.5	71.4	74.4	81.4	2.4
1.0	82.5	2.1	84.6	75.8	73.8	76.8	83.8	2.4
1.5	83.6	2.1	85.7	76.9	75.1	78.0	85.0	2.4
2.0	84.0	2.1	86.1	77.4	75.5	78.4	85.4	2.4
2.5	84.1	2.1	86.2	77.5	75.7	78.6	85.6	2.4
3.0	84.3	2.1	86.4	77.7	76.0	78.9	85.9	2.4
3.5	84.4	2.2	86.6	77.7	76.0	78.9	85.9	2.4
4.0	84.4	2.1	86.5	77.7	75.9	78.8	85.8	2.4
4.5	84.6	2.1	86.7	77.8	76.0	78.9	85.9	2.4
5.0	84.5	2.1	86.6	77.8	76.2	79.0	86.0	2.4
5.5	84.7	2.2	86.9	77.9	76.2	79.1	86.1	2.4
6.0	84.8	2.2	87.0	78.1	76.4	79.2	86.2	2.4
6.5	84.8	2.2	87.0	78.0	76.3	79.1	86.1	2.4
7.0	84.8	2.1	86.9	78.0	76.1	79.1	86.1	2.4
7.5	84.6	2.2	86.8	77.8	76.1	79.0	86.0	2.4
8.0	84.6	2.1	86.7	77.9	76.0	78.9	85.9	2.4
8.5	84.5	2.2	86.7	77.8	75.9	78.8	85.8	2.4
9.0	84.5	2.3	86.8	77.9	76.1	78.9	85.9	2.4
9.5	84.6	2.1	86.7	77.9	76.0	78.9	85.9	2.4
10.0	84.4	2.2	86.6	77.8	76.0	78.9	85.9	2.4
10.5	83.9	2.1	86.0	77.2	75.5	78.4	85.4	2.4

MAXIMUM VALUES IN BANDS, PNLC = 85.0

50	63	80	100	125	160	200	250	315	400
59.9	60.1	63.9	65.2	61.4	59.2	57.2	58.6	61.9	65.2
71.1	70.3	69.2	69.5	68.5	64.2	60.6	53.8	44.1	47.7
50.6	45.1	35.9	39.8						

SPECTRUM FOR MAX PNLT

54.0	58.8	62.1	64.8	61.0	59.1	56.6	58.5	61.9	65.1
71.0	70.2	69.2	69.5	68.5	64.1	60.3	53.7	44.0	47.6
50.5	45.0	35.9	39.8						

	TIME	MAX.	D10	I-10	D20	I-20	D/15+M	D/30+M
P.T.	9.0	2.3						
PNL	6.0	84.8	10.5	94.2	10.5	94.2	83.3	80.2
PNLT	6.0	87.0	10.5	96.4	10.5	96.4	85.5	82.4
A-LEV	6.0	76.4	10.5	85.7	10.5	85.7	74.9	71.8
N-LEV	6.0	86.2	10.5	95.6	10.5	95.6	84.7	81.6

EPNL = 86.4

200 HZ. COMP., RUN #8, 30 DB PEAK ABOVE RMS NOISE

T	PNL	P. T.	PNLT	OA	A-LEV	D-LEV	N-LEV	BAND #
0.0	65.7	2.0	67.7	59.6	56.5	60.0	67.0	1.1
0.5	84.1	2.0	86.1	80.8	71.5	77.3	84.3	2.1
1.0	87.5	2.0	89.5	84.1	74.7	80.7	87.7	2.1
1.5	89.0	2.0	91.0	85.6	76.1	82.2	89.2	2.1
2.0	89.7	2.1	91.8	86.4	76.8	83.0	90.0	2.1
2.5	90.0	2.0	92.0	86.7	77.1	83.2	90.2	2.1
3.0	90.3	2.0	92.3	87.0	77.3	83.5	90.5	2.1
3.5	90.5	2.1	92.6	87.3	77.5	83.7	90.7	2.1
4.0	90.6	2.1	92.7	87.4	77.7	83.9	90.9	2.1
4.5	90.6	2.1	92.7	87.5	77.7	84.0	91.0	2.1
5.0	90.6	2.1	92.7	87.4	77.8	84.0	91.0	2.1
5.5	90.5	2.0	92.5	87.3	77.6	83.8	90.8	2.1
6.0	90.5	2.0	92.5	87.2	77.6	83.8	90.8	2.1
6.5	90.6	2.0	92.6	87.4	77.7	83.9	90.9	2.4
7.0	90.7	2.0	92.7	87.5	77.7	84.0	91.0	2.4
7.5	90.8	2.1	92.9	87.6	77.9	84.1	91.1	2.4
8.0	90.7	2.0	92.7	87.4	77.8	83.9	90.9	2.4
8.5	90.7	2.0	92.7	87.3	77.8	83.9	90.9	2.4
9.0	90.7	1.9	92.6	87.5	77.8	84.0	91.0	2.1
9.5	90.9	2.0	92.9	87.6	77.9	84.1	91.1	2.1
10.0	91.0	2.1	93.1	87.7	78.0	84.2	91.2	2.4
10.5	91.0	2.1	93.1	87.7	78.1	84.3	91.3	2.4

MAXIMUM VALUES IN BANDS, PNLC = 91.1

50	63	80	100	125	160	200	250	315	400
67.5	71.2	75.0	77.7	78.6	80.3	81.7	80.1	74.7	65.6
69.6	67.7	66.2	66.2	65.6	62.4	58.5	51.8	41.4	45.3
48.4	42.9	34.1	37.7						

SPECTRUM FOR MAX PNLT

67.1	71.1	74.5	77.7	78.6	80.3	81.6	80.0	74.6	65.5
69.2	67.3	65.9	65.6	65.5	62.4	58.5	51.8	41.4	45.3
48.2	42.9	34.1	37.7						

	TIME	MAX.	D10	I-10	D20	I-20	D/15+M	D/30+M
P. T.	2.0	2.1						
PNL	10.0	91.0	10.5	100.2	10.5	100.2	89.5	86.4
PNLT	10.0	93.1	10.5	102.2	10.5	102.2	91.6	88.5
A-LEV	10.5	78.1	11.0	87.5	11.0	87.5	76.8	73.7
N-LEV	10.5	91.3	11.0	100.7	11.0	100.7	90.0	86.9

EPNL = 92.2



400 HA. COMP., RUN #9, 30 DB PEAK ABOVE RMS NOISE

T	PNL	P.T.	PNLT	OA	A-LEV	D-LEV	N-LEV	BAND #
0.0	57.8	6.7	64.5	52.8	50.4	53.8	60.8	1.1
0.5	82.5	1.8	84.3	76.7	72.2	76.2	83.2	2.1
1.0	86.1	1.8	87.9	80.5	75.7	79.8	86.8	2.1
1.5	87.8	1.8	89.6	82.2	77.3	81.4	88.4	2.1
2.0	88.6	1.9	90.5	83.1	78.1	82.3	89.3	2.4
2.5	89.1	1.9	91.0	83.6	78.6	82.8	89.8	2.1
3.0	89.2	1.9	91.1	83.7	78.6	82.8	89.8	2.1
3.5	89.4	1.9	91.3	84.0	78.9	83.1	90.1	2.4
4.0	89.6	1.9	91.5	84.2	79.1	83.3	90.3	2.4
4.5	89.7	1.9	91.6	84.3	79.3	83.5	90.5	2.4
5.0	89.8	1.9	91.7	84.4	79.4	83.6	90.6	2.4
5.5	89.8	1.8	91.6	84.4	79.3	83.6	90.6	2.4
6.0	89.7	1.8	91.5	84.2	79.2	83.4	90.4	2.1
6.5	89.7	1.9	91.6	84.3	79.2	83.5	90.5	2.1
7.0	89.8	1.9	91.7	84.4	79.3	83.5	90.5	2.1
7.5	89.9	1.9	91.8	84.5	79.4	83.7	90.7	2.1
8.0	89.9	1.8	91.7	84.5	79.4	83.7	90.7	2.1
8.5	89.8	1.9	91.7	84.3	79.2	83.5	90.5	2.1
9.0	89.8	1.8	91.6	84.4	79.3	83.5	90.5	2.1
9.5	89.8	1.8	91.6	84.4	79.4	83.6	90.6	2.1
10.0	89.9	1.8	91.7	84.5	79.4	83.6	90.6	2.4
10.5	89.9	1.9	91.8	84.5	79.4	83.7	90.7	2.1

MAXIMUM VALUES IN BANDS, PNLC = 90.1

50	63	80	100	125	160	200	250	315	400
58.7	62.4	66.3	68.3	68.8	71.5	74.3	76.2	77.0	77.5
76.3	72.7	67.0	66.9	66.8	63.2	59.4	53.0	43.5	46.4
49.1	43.7	36.0	38.9						

SPECTRUM FOR MAX PNLT

57.6	62.0	66.2	67.8	68.8	71.5	74.3	76.2	77.0	77.4
76.0	72.6	66.6	66.7	66.6	63.1	59.4	52.7	43.2	46.3
49.1	43.5	35.7	38.9						

	TIME	MAX.	D10	I-10	D20	I-20	D/15+M	D/30+M
P.T.	0.0	6.7						
PNL	7.5	89.9	10.5	99.2	10.5	99.2	88.4	85.3
PNLT	7.5	91.8	10.5	101.1	10.5	101.1	90.3	87.2
A-LEV	5.0	79.4	10.5	88.8	10.5	88.8	77.9	74.8
N-LEV	7.5	90.7	10.5	100.0	10.5	100.0	89.2	86.1

EPNL = 91.1

800 HZ. COMP., RUN #10, 30 DB PEAK ABOVE RMS NOISE

T	PNL	P.T.	PNLT	CA	A-LEV	D-LEV	N-LEV	BAND #
0.0	51.3	1.2	52.5	43.6	40.1	46.9	53.9	0.2
0.5	80.7	1.6	82.3	74.2	72.4	75.0	82.0	2.1
1.0	84.4	2.0	86.4	77.9	76.1	78.7	85.7	2.4
1.5	85.9	2.0	87.9	79.5	77.7	80.2	87.2	2.4
2.0	86.5	2.0	88.5	80.1	78.2	80.8	87.8	2.4
2.5	87.1	2.0	89.1	80.6	78.7	81.3	88.3	2.4
3.0	87.5	2.1	89.6	81.1	79.1	81.7	88.7	2.4
3.5	87.7	2.0	89.7	81.3	79.4	81.9	88.9	2.4
4.0	87.9	2.0	89.9	81.5	79.6	82.1	89.1	2.4
4.5	87.8	2.0	89.8	81.3	79.3	81.9	88.9	2.4
5.0	87.8	2.0	89.8	81.4	79.5	82.0	89.0	2.4
5.5	87.8	2.0	89.8	81.4	79.5	82.0	89.0	2.4
6.0	88.0	2.0	90.0	81.6	79.6	82.2	89.2	2.4
6.5	88.1	1.9	90.0	81.7	79.8	82.3	89.3	2.4
7.0	88.0	1.9	89.9	81.7	79.7	82.2	89.2	2.4
7.5	87.9	1.9	89.8	81.5	79.5	82.1	89.1	2.4
8.0	87.9	2.0	89.9	81.6	79.6	82.2	89.2	2.4
8.5	88.0	2.0	90.0	81.7	79.7	82.2	89.2	2.4
9.0	88.1	2.0	90.1	81.7	79.7	82.3	89.3	2.4
9.5	88.1	1.9	90.0	81.8	79.8	82.3	89.3	2.4
10.0	87.9	1.9	89.8	81.5	79.6	82.1	89.1	2.4
10.5	87.9	1.9	89.8	81.5	79.6	82.1	89.1	2.4
11.0	87.8	1.8	89.6	81.4	79.4	82.0	89.0	2.4

MAXIMUM VALUES IN BANDS, PNLC = 88.2

50	63	80	100	125	160	200	250	315	400
58.9	60.8	63.7	65.5	62.9	62.6	64.2	66.8	68.9	71.1
74.0	74.3	74.2	72.8	70.4	64.6	61.4	55.6	50.5	50.6
51.2	46.5	37.5	40.0						

SPECTRUM FOR MAX PNLT

58.0	59.3	63.6	64.5	61.8	61.9	64.2	66.8	68.8	71.1
73.9	74.2	74.2	72.6	70.2	64.5	61.0	55.2	50.3	50.5
51.1	46.2	37.1	39.8						

	TIME	MAX.	D10	I-10	D20	I-20	D/15+M	D/30+M
P.T.	3.0	2.1						
PNL	6.5	88.1	11.0	97.6	11.0	97.6	86.8	83.7
PNLT	9.0	90.1	11.0	99.6	11.0	99.6	88.8	85.7
A-LEV	6.5	79.8	11.0	89.3	11.0	89.3	78.5	75.4
N-LEV	6.5	89.3	11.0	98.9	11.0	98.9	88.0	84.9

EPNL = 89.6